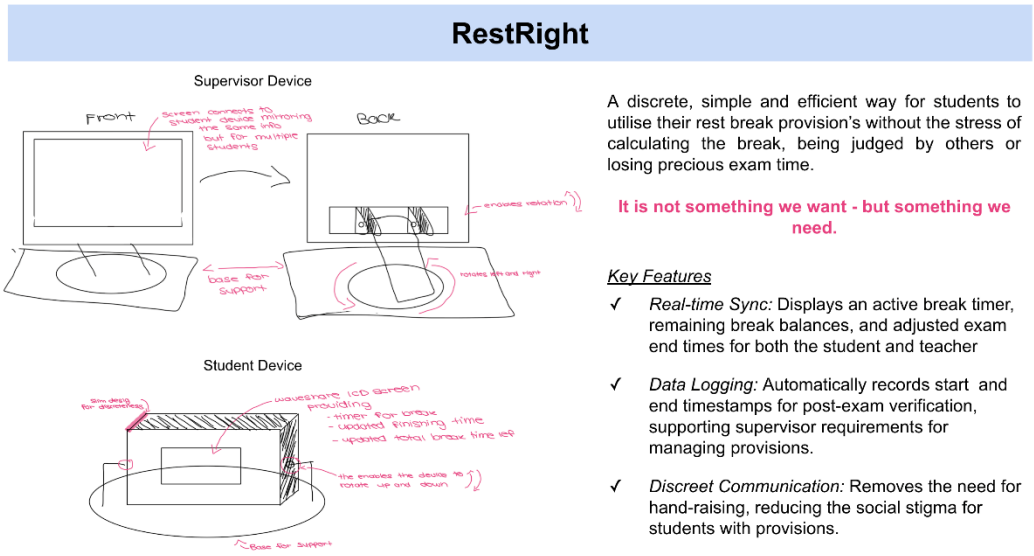
UpRising 2026 Projects

RestRight - Putting your provision's in your hands



15 March 2026 by **TaraE_0689** 30

2026

Current manual rest-break procedures in secondary education (Years 7-12) frequently cause lost exam time, communication errors, and student anxiety due to the visibility of requesting breaks. My solution is a synchronised Bluetooth device system for students and supervisors that automates the tracking of NESA/school-approved examination provisions, providing real-time data to both parties.

What do you think?

UpRising @ 2026.03.16 3:49 AM
Oh I love this. Such a clever idea. I have administrated a lot of exams that had rest breaks and other provisions. It is madness trying to keep up with all the timings. How can we help. What are three things that we can need assist with?

Bree Brown @ 2026.05.01 3:49 AM

Hi Tara,

This is a great idea and definitely resonate with this need.

At my school the breaks are set at a specific time, how with students communicate that they would like their break? Is there a button they press ect.

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melc @ 2026.05.01 3:49 AM

Tara this is such a great idea

Maybe when it is time for a student to go on break a small light could turn on? and then when their break is over the light turns off?

TaraE_0689 @ 2026.05.03 3:49 AM

@ Bree Brown

Yes! The student device will either have a physical button that they press to alert the teacher they would like to take their break or a button I will integrate into the digital screen

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TaraE_0689 @ 2026.05.03 3:49 AM

@Melinda C

Thank you so much for the idea!! I will have a look into what that would involve. How do you think that would help either you as a student or teacher when taking/logging the rest breaks?

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melc @ 2026.05.03 7:06 AM

@TaraE_0689

At uni we completed a unit on Arduino circuits, so you could potentially explore creating a simple circuit where a student can discreetly activate a light when they need to take a break. You could also research timed touch lamps that automatically switch off once the break has ended/colour change. You could probably put the light in side a 3d printed button that is discrete for only the person sitting at the desk to see. - I think this would help both students and teachers as currently, teachers often have to verbally notify students about their breaks, which can create noise, interrupt other students during exams and sometimes make students with provisions feel embarrassed or singled out. Also teachers can quickly see which students are currently on a break without having to talk!!

https://www.youtube.com/watch?v=kD_oqtW92O8

Public Education team - IP Australia @ 2026.10.20 6:37 AM

A strong student-focused idea with real potential to help students in exam settings! As your idea develops, and wherever the future takes you, it could be worth exploring how intellectual property (IP) rights might help protect your ideas.

There are some great resources on the IP Australia website to help you learn more about IP and the different rights that may apply.

Great work and best wishes for the future Tara – Lauren (the IP Australia team).

Public Education team - IP Australia @ 2026.10.20 6:56 AM

A strong student-focused idea with real potential to help students in exam settings!

As your idea develops, and wherever the future takes you, it could be worth exploring how intellectual property (IP) rights might help protect your ideas. There are some great resources on the IP Australia website to help you learn more about IP and the different rights that may apply.

Great work and best wishes for the future Tara – Lauren (the IP Australia team).

REWOVEN, a sustainable garment made from recycled waste



3 March 2026 by **Caitlin M** 391

2026

Every second 63.75 tons of food and material are discarded, yet very little of this waste is repurposed in meaningful, long-term solutions such as garment design.

For my 2026 Major Project, I aim to raise awareness of **sustainability** issues, by creating a eco-friendly statement **garment** from **bio-materials** and **upcycled fabric** - tackling the issue of food and textile waste.

Supporting my project, I am seeking advice on developing **recipes** for biodegradable material, utilising natural ingredients to provide structure for my garment as well as guidance on **textile techniques**, using recycled waste such as food, plastic, and fabric to create textures.

What do you think?

Caitlin M @ 2026.03.03 6:34 AM

Having already experimented with a variety of biomaterial recipes as shown in the above image, I am looking for possible ways I can incorporate food waste to add texture, pigment or shape to the biomaterial which will be transformed into sewn clothing pieces.

Please comment below if you have any questions about my project or have ideas of how I can transform common waste products into sustainable details for my garment!

UpRising @ 2026.03.04 6:34 AM

A fantastic idea Caitlin

There is a great organisation here in Australia, called the Australian Circular Economy Hub. https://acehub.org.au/

I hope you don't mind but I posted your project idea on their community forum. https://portal.acehub.org.au/forum/t/59042

Looking forward to seeing your project develop.

Caitlin M @ 2026.03.06 10:27 AM

Thank you Uprising!

I have just looked further into ACE hub's website and researched what the organisation generally does regarding improving sustainability through the use of material and waste regeneration in the production process.

I have read some articles on ACE about salt-water biodegradable plastics, use of waste to produce 3D filament and the SCOBY process of kombucha which I find very interesting. I will continue to investigate any guidance companies have in building materials and I hope some industry professionals will interact with this project!

BethanDavies @ 2026.03.18 10:27 AM
Love this idea!!!

Aurelie_Dalloway @ 2026.03.18 10:27 AM
This is amazing! I can't wait to see the final project being completed!

K8ieThatOne @ 2026.03.18 10:27 AM
WOWWW, this is a awesome initiative towards improving the sustainability of our planet. I can't wait for the final results!!!!

Aje_Castillo @ 2026.03.19 10:27 AM
This looks so cool what a great idea! I can't wait to see what you do with your talent.

Daphne @ 2026.03.22 10:27 AM
Fantastic idea well done Caitlin!

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missmsm @ 2026.03.22 10:27 AM

This is such a unique and interesting concept! It's so important for us to start looking at proactive and sustainable ways to help the environment especially in the fashion industry.Absolutely love this idea and can't wait for to come to life in the future.

Darshana Dotel @ 2026.04.10 10:27 AM

Hi Caitlin,

Your concept provides a unique solution to the issue of fashion sustainability. The concept of recycling food and textile waste into an eco-friendly statement clothing is both creative and important, and your biomaterial experiments demonstrate a strong commitment to explore real options rather than simply addressing the issue.

One of your proposal's key strengths is the combination of environmental awareness with clothing design. Designing clothing that repurposes food scraps and textile waste is extremely important since fashion is a significant cause of environmental damage (Niinimäki et al., 2020). However, at this stage the project is still quite broad, as it includes food waste, plastic waste, textile waste, biomaterials, texture development, and awareness-raising all at once. I would advise limiting the material emphasis and outlining the purpose of each waste source in order to reinforce the design.

Also, since the final product is a piece of clothing that can be worn, the biomaterials need to be tested for more than simply how they look. They should also be checked for how flexible, durable, easy to sew, comfortable, and shape-retaining they are over time (Burnstine and Camargo, 2025). If you keep experimenting with these performance criteria in mind, the project will be more useful and your final design choices will be better supported.

Your project is really imaginative and important overall, but it might be better if it had a tighter focus, defined functions for the materials, and more testing that is directly related to how the clothes work and how comfortable they are.

I think you are heading in a really interesting direction, and I am excited to see how your idea develops further!

Sources:

Burnstine, Dr.A. and Camargo, Dr.A. (2025). Fashioning the Future: Bio-Based Textiles, Circular Innovation, and Sustainability in Emerging Markets. *Cleaner and Circular Bioeconomy*, [online] p.100194. doi:https://doi.org/10.1016/j.clcb.2025.100194.

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T. and Gwilt, A. (2020). The Environmental Price of Fast Fashion. *Nature Reviews Earth & Environment*, 1(4), pp.189–200. doi:https://doi.org/10.1038/s43017-020-0039-9.

Darshana Dotel

CQUniversity Bachelor of Engineering

Shrijana Basnet @ 2026.04.10 10:27 AM

Hi Caitlin,

I love your idea! What you are doing can inspire others to reuse the materials they have at home as well, improving overall sustainability. Upcycling and using the materials around you gives you a wide range of textures to utilise. It will be interesting to see how all of the recycled waste you plan to use interacts with each other. However, one problem I can see is that it will be very difficult to separate materials. Food wastage to be usable in garments will need specialised equipment. However, food wastes such as kitchen scraps can be used as natural dyes (Crane, 2024). They can provide colour to fabrics such as linen, wool, and cotton. As you may know already, coffee/tea is a great natural dye if you want a soft brown or beige colour, and onion peels are great for a dusty/vibrant yellow. The bibliography below is worth a read, especially if you lean on using recycled food waste in your project. I am keen to see what you do and how you progress. Good luck!

Kind Regards,

Shrijana Basnet

From CQU ENEG12007 Creative Engineering class.

Bibliography:

Crane, N. (2024). *Natural Dyeing with Kitchen Scraps: Eco-Friendly Colour from Household Waste*. [online] Thread Collective. Available at: https://threadcollective.com.au/blogs/dyeing/natural-dyeing-kitchen-scraps?srsltid=AfmBOop14e_9D8RFRWNPbijjWOTV0dUA29CWoPfP9JhewMixBTzfHzMf

Patricia Cazón, Ana Sanches Silva, Natural pigments from food wastes: New approaches for the extraction and encapsulation, Current Opinion in Green and Sustainable Chemistry, Volume 47, 2024, 100929, ISSN 2452-2236, https://doi.org/10.1016/j.cogsc.2024.100929 .

Caitlin M @ 2026.04.15 10:28 AM

Hi Darshana,

Thank you so much for your thoughtful feedback, I really appreciate the time you took to engage so deeply with my idea. I can definitely see what you mean about the concept being quite broad at this stage, and your suggestion to narrow the material focus really helped me reflect on how I can strengthen the direction of my project.

Moving forward, I'm going to be more intentional about why I'm choosing each material, and clarify the role it plays within the design rather than trying to explore everything at once. I like your point about defining the purpose of each waste source, and I think this will help me communicate the sustainability message more clearly through the garment itself.

Since posting this project, I have experimented with more materials specifically to improve durability and flexibility for when it will be sewn into the garment as well as its ability to bio degrade in water. Ergonomics especially involving the material interaction with the skin is most definitely a major aspect of my design and so far because I am utilising natural sustainable ingredients I have not seen any side effects.

Thank you so much for your advice and interaction with my project, I will definitely look to tighten my focus and explore the specific role of materials in the creation of my project.

Caitlin

Bree Brown @ 2026.05.01 8:43 AM

Hi Caitlin,

I love your idea! Have a looking to kombucha mother as a fabric. Scoby is the was waste byproduct of kombucha is is often wasted but more recently has been used as a fabric.

Here are some links:

Kombucha Clothing – Meet The Designer Turning Food Waste into Fashion:

https://thegreenhubonline.com/kombucha-clothing-meet-the-designer-turning-food-waste-into-fashion/

From Grave to Cradle: Kombucha Waste for Sustainable Electronics

https://pmc.ncbi.nlm.nih.gov/articles/PMC13042482/

Hope this is helpful,

Bree

MahekP @ 2026.05.01 8:56 AM

Hi Catlin!

This is a fantastic idea that really focuses on a contemporary issue! I would love if this garment was also sustainable beyond the materials used. Sustainability can be implemented at every level, possible look into the disposal of the garment/end-of-life. For example, you could think about how the item will be disposed of once it is used. Can certain parts of the project be taken apart or otherwise and used somewhere else? Combining different materials (food, fabric and plastic) may make it so that it cannot be reused once again. This may not have a solution but it is worth thinking about!

https://www.oneplanetnetwork.org/sites/default/files/2023-08/UNEP_Sustainability%20and%20Circularity%20in%20the%20Textile%20Value%20Chain%20-%20A%20Global%20Roadmap%202023.pdf

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Public Education team - IP Australia @ 2026.10.20 6:58 AM

A creative idea with real-world impact, Caitlin.

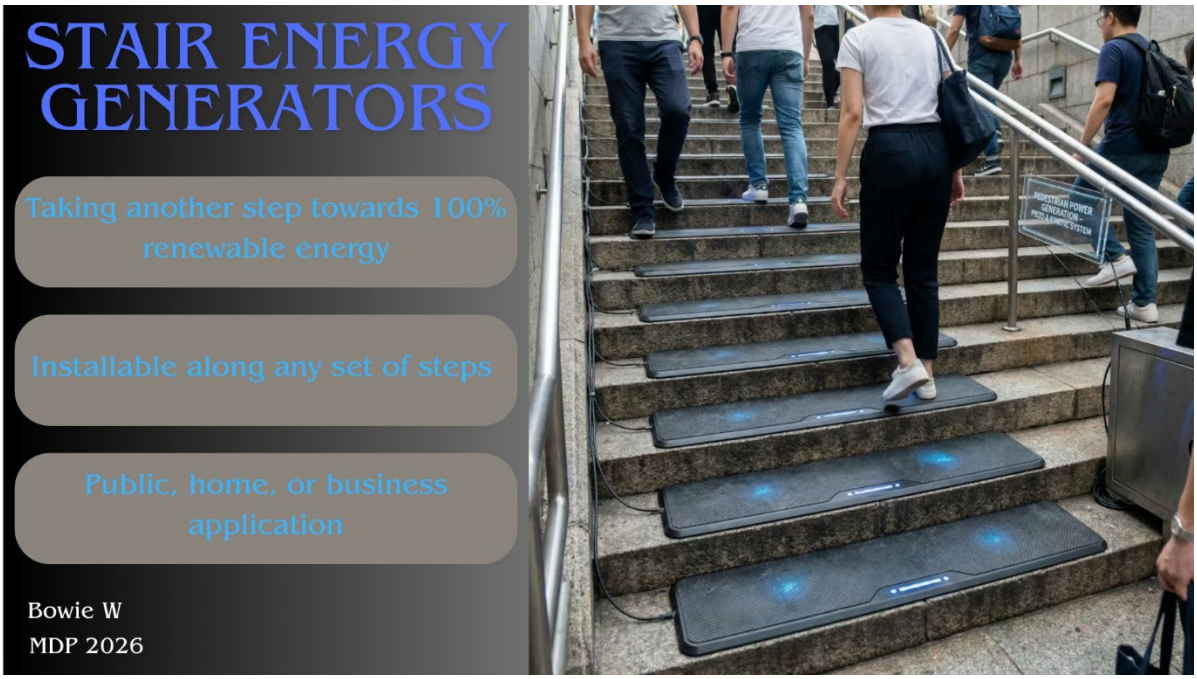
It may be worth thinking about how intellectual property (IP) rights could help protect your design and ideas now and into the future. If you want to learn more, head to the IP Australia website.

Wherever your ideas take you next, we wish you every success – Lauren (the IP Australia team).

UpRising @ 2026.10.21 12:56 PM
Great work

Mily @ 2026.10.21 12:57 PM
Great work

Stair Energy Generator (SEG)



2 March 2026 by **BowieW**

40

2026

Over 45 countries experience ten or more power outages per year, with Bangladesh experiencing 248 a year, and over 70% of consumed energy per year is either Coal, Oil, or natural gas. The world needs cleaner energy, which can be easily built/installed in any country. This has led me to design a product that can capture wasted energy through the action of traversing a set of stairs and store it for later use.

To assist in the development of this project, advice/support in energy generation (piezoelectric, electromagnetic generator, electric motor, Triboelectric Nanogenerators), Material research, electronics (energy storage), and Mechanical Engineering.

What do you think?

UpRising @ 2026.03.04 4:34 AM

A great idea Bowie. We humans can make such a difference if we just placed smart ideas in front of every day actions.. like walking up the steps.

This is well out of my area of expertise, but the amazing engineering students at the Central Queensland University would love to tackle this one.. 'advice/support in energy generation (piezoelectric, electromagnetic generator, electric motor, Triboelectric Nanogenerators), Material research, electronics (energy storage), and Mechanical Engineering'. Let me see if I can help connect you.

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carol @ 2026.03.21 4:34 AM

so smart! ~ millions of people walk up and down stairs everyday - this would make a HUGE difference.

Ellison @ 2026.03.31 1:47 PM

What a great idea, Bowie! There are billions of stairs that most of us walk on every day. High-traffic areas such as train stations are a great place to explore.

I recently completed a university project that looked at movement through Central Station in Sydney and mapped it. Let me tell you, there are many stairs connecting platforms and heaps of people flowing through them. Somewhere like this would be a great place to research. Think big and find a place where you can analyse your impact on society and the world around you through your innovation!

Ellison
1st-year product design student The University of Technology Sydney

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Nathan Connellan @ 2026.04.05 1:47 PM

Hey Bowie W,

Great idea,

although the energy applied by each step would be very minimal, set in the correct location like a stairway to a busy subway, this would be able to provide a decent amount of energy. it would be more difficult to integrate into the network grid (though definitely possible) I see it best used in a local network.

you could say have all local LED lighting connected to this system, with a storage battery connected. to use the energy efficiently you could have the lights only turn on when necessary, based on ambient light, or first step could start a timer.

definitely worth extra research.

this could be expanded to horizontal paths, not just stairs also, though with a staircase and rails it would be easier to hide cabling and protect from trip hazards.
looking up the subject, it appears there is some very good research into the concept with already prototyping
https://www.researchgate.net/publication/391822215_A_Review_of_Footstep_Energy_Harvesting_Systems

Have a look, it is very interesting and they have calculated how much energy is generated per step fall.

this will help you to scale correctly and understand the possible loads you can run.

Nathan Connellan

CQU ENEG12007- Creative engineering

Bella Cimarosti @ 2026.04.08 1:47 PM

Hi Bowie - what an awesome idea!

I love how this technology relies on human interaction to support with a human-facing problem, and has fewer environmental impacts unlike mining fossil fuel, or clearing land for conventional regenerative energy harvesting methods (solar farms, wind farms etc). Its a really creative and meaningful approach to energy generation.

Based on your brainstorm selection, I think the piezoelectric system is fantastic - as it leveraged mechanical stress form the weight of each step, it doesn't require high-maintenance mechanisms to produce the electric current - this simplicity can offer huge advantaged in practical applications. For instance, the Electromagnetic Generator will likely need a spring & slider or piston mechanism built into each pad to allow transfer of mechanical energy. Similarly, the Motor-Based (Reverse Generator) idea is excellent, but probably suited to larger-scale systems as each step would need to drive the linkage mechanism (rack & pinion, lever arm and gear train), which may propose similar maintenance difficulties in compact 'SEG' pads. Although it can certainly be a strong option if scaled well!

Both the electromagnetic and motor-based prototype ideas require surface motion (ie. depression during loading and then mechanical reset, when load is lifted), and must incorporate many different loading points (not a distributed load), which creates an uneven surface making it hard to balance and introducing a trip hazard. The Triboelectric Nanogenerators option is an excellent application of modern nanotechnology but the reliance on contact/friction between materials to transfer an electric charge may also provide an unstable surface for people to climb on, and must be regularly maintained to prevent build-up of dust and moisture which impact yield (Callaty. C, et.al., 2025). Still, its exciting to see how emerging technologies could evolve in this space!

On material research (piezoelectric):

- Quartz is highly durable, stable and is actually the "second most abundant mineral in the Earth’s crust" (CSIRO, 2024), hence it's low cost and easily accessible. However, it has low piezoelectric output due to minimal deformation (Energy Floors, n.d.)

- Lead Zirconate Titanate (PZT) is one of the best performing piezoelectric materials, but requires mining and extensive industrial processing and manufacturing for utilisation. (American Piezo, n.d.)

- Potassium sodium niobate (KNN) is another high-performing piezoelectric material, which offers high durability, stability and since it contains no lead it is suitable from public health and environmental standpoint (Xu, L., *et al.*, 2024)

All the best with you idea and design - it is super interesting and you're definitely onto something impactful here.

I am excited for where your research and experiment leads you!

Sources:

American Piezo, n.d. PZT. Available at: https://www.americanpiezo.com/knowledge-center/piezo-theory/pzt/

Callaty, C., Rodrigues, C. and Ventura, J., 2025. *Triboelectric nanogenerators in harsh conditions: a critical review*. *Nano Energy*, *135*, p.110661.

CSIRO, 2024. *Quartz: A mineral with hidden potential*. Available at: https://research.csiro.au/critical-minerals-hub/quartz-a-mineral-with-hidden-potential/

Energy Floors, 2025. Understanding Piezoelectricity; Promise and Limitations. Available at: https://energy-floors.com/piezoelectric-energy-promise-and-limitations/

Xu, L., *et al.*, 2024. Ultrahigh thermal stability and piezoelectricity of lead-free KNN-based texture piezoceramics. *Nat Commun* **15**, 9018. https://doi.org/10.1038/s41467-024-53437-5

Josiah L @ 2026.04.09 1:47 PM

This is a very interesting idea. Taking the stairs when commuting is much healthier than taking an elevator.

You may wish to think more broadly as to whether you can incorporate an incentive for passersby to take the stairs as opposed to the elevator to promote healthy lifestyles (maybe the steps can light up in patterns when stepped on).

Josiah Lowe

CQUniversity Bachelor of Engineering

Anonymousmax @ 2026.05.01 1:47 PM

This is a really strong concept and the visual communicates the idea clearly straight away. The use of a real-world scenario (people walking up stairs) makes the idea feel practical and achievable rather than just conceptual.

One thing that works well is how the product targets *wasted energy* rather than trying to replace large-scale generation. That makes it more realistic and scalable, especially in high foot traffic areas like train stations, schools, or shopping centres.

However, I think you could strengthen it by acknowledging efficiency and output. Stair-based systems usually generate quite small amounts of energy per step, so it would be good to clarify what the stored energy is actually used for (e.g. lighting, sensors, small-scale applications). That would make the proposal feel more technically grounded.

Also, the claim “installable along any set of steps” might need a bit more consideration. Things like durability, weather exposure, slip resistance, and maintenance could impact where it can realistically be used.

Overall though, it’s a well thought-out idea with a clear sustainability focus. With a bit more detail around energy output and real-world constraints, it could be a really strong MDP concept.

Water Dissolvable PLU Apple Stickers



27 February 2026 by **Issy** 25

2026

Tens of billions of PLU fruit stickers are discarded each year, contributing to non-biodegradable waste and increasing landfill pressure in NSW.

Currently, 100% of fruit sold in major supermarkets uses plastic-coated, non-compostable stickers.

This project is proposing a Sustainable, water-dissolvable PLU sticker based on existing Pink Lady apple branding.

The sticker will need to maintain strong adhesion, withstand moisture and transport conditions, and function effectively at checkout.

This solution aims to reduce everyday plastic waste at its source while maintaining supermarket practicality.

I am seeking support in processes and materials that will allow for functionality of this product.

What do you think?

UpRising @ 2026.03.04 12:01 PM

A great idea Issy, those stickers are so annoying as well as being terrible for the environment. There has to be a better solution.

Reach out to these guys, Australian Institute of Packaging. Ask for **Nerida Kelton, Executive Director and** Vice President Sustainability & Save Food.

www.aipack.com.au

Hope this helps.

Anne Bamford @ 2026.03.13 3:41 PM
As Director of the International Research Agency and Adjunct Professor at the University of Sydney, I find your idea for water-dissolvable fruit stickers both imaginative and important. Addressing everyday plastic waste at its source is exactly the kind of practical innovation the world needs. Your project shows how thoughtful design can improve sustainability without disrupting real systems like supermarkets and supply chains. I wonder whether the stickers could even be edible—what an elegant solution that would be. Remember that innovation often begins with curious students like you.

Ellison @ 2026.03.31 2:40 AM

I completely relate to this issue, Issy. What a brilliant idea! I eat a piece of fruit every day and 90% of them have stickers. Now I realise how many I use annually and how detrimental they are to the environment. This is fantastic! Sustainability and recyclables are crucial for our world right now.

Ellison

1st-year product design student, The University of Technology Sydney

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Dianna @ 2026.04.06 9:16 AM

Hi Issy, this is a fabulous idea! I have seen these stickers all over buildings and chairs where people don't think of the waster they are leaving behind. Building on a current system that works from gate to plate and seeing how the small things could be better is such a great way to improve everything.

I love the idea of water-dissolvable but am not sure what material could be used to withstand the moisture during transport and on display at the supermarkets. I would love to see what you come up with - maybe a material that is water resistant for a time to sustain the supermarket practicality but not waterproof and made from plastic like it is now?

Jonathon Harwood @ 2026.04.08 6:45 AM

This is a really strong idea because it addresses a very common but often overlooked source of plastic waste. The concept is practical as it targets an existing product already used in very high volumes, so even a small improvement could create a significant environmental benefit. I also think using existing Pink Lady branding is a smart choice because it makes the idea easier to visualise in a real supermarket setting.

One important area to investigate further would be the balance between durability and dissolvability. The sticker would need to remain attached during transport, refrigeration, moisture exposure, and customer handling, but still dissolve effectively when intended. It may also be

worth exploring whether the sticker should be fully water-dissolvable or only dissolve under specific conditions such as soaking or washing.

Another key consideration is whether the barcode and PLU information would still scan reliably at checkout, especially if the sticker begins degrading too early. Food safety, adhesive selection, and compatibility with current supermarket labelling systems would also be important to research.

Overall, this is a creative and meaningful sustainability idea with strong real-world relevance. With further investigation into materials, printing methods, and supermarket testing conditions, I think it has strong potential.

Jonathon Harwood

CQU - ENEG12007 Creative Engineering

Brad Quinlan @ 2026.04.10 3:47 PM

This is a pretty good idea, a much needed reduction in waste plastic. The little stickers on such large amounts of singular pieces of fruit add up quickly. If proven successful this could massively reduce waste plastic introduced into the environment.

A few problems that would need to be successfully trialled and confirmed suitable for use would be the ability to sustain low-medium levels of moisture, especially while on display receiving regular misting from supermarket workers and misting sprays. If the stickers don’t hold up, the identification and tracking for pricing and sales will fail. If the stickers don’t dissolve under higher moisture rates, the product is essentially back to square one.

And on top of that if the cost of the sticker is any real increase on the existing sticker cost the breakthrough to market will struggle immensely, considering the small margins large scale supermarkets push onto the nations farmers.

A great idea that, if proven to work, could do great things.

Brad Quinlan, CQUniversity ENEG12007 Creative Engineering

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melc @ 2026.05.01 5:13 PM

Hi Issy

Well done what a great idea !

You could try looking into food safe bioplastics or even bioplastics made from food waste.

Good Luck!

Supporting the recovery and pain relief of acute musculoskeletal-based shoulder injuries



23 February 2026 by **Ash** 4

2026

To design and create a product which will promote a more efficient and pain-free recovery process for acute musculoskeletal-based shoulder injuries primarily, but may also be used to treat bone-based injuries. Furthermore, this project will aspire to aid the recovery of these injuries by supporting the muscles at a sustained and efficient rate for optimal recovery. Additionally, it will make use of best practice temperature-based recovery techniques, providing both heat and icing options. Furthermore, the brace's design will combat equity-based issues, allowing all demographics to access this product, such as low SES, youth, adults, beginner or cognitive athletes and more.

What do you think?

Phoebe Gilpin @ 2026.04.09 6:13 PM

Hi Ash,

You've provided a strong concept and I understand the want to create better shoulder braces to aid athletes and everyday people with recovery.

Shoulder braces being used for recovery is a key aspect in rehabilitating the joint. It provides stability to the surrounding tissue and reduces pain in the joint. The support limits possible harmful movements to the shoulder during healing. These braces can also be used as a

preventative measure by correcting the shoulder positioning and strength (Chiu et al. 2020). However these braces don't replace the quality care that you can get from rehabilitation as it does not restore strength to the shoulder and can cause a dependency and muscle weakness over time.

The inclusion of both heating and cooling integration is a great idea. Cold and hot therapy have shown to help speed the healing process in muscle injuries. However, there currently isn't a clear protocol on how this temperature therapy should be undertaken and only showing short term results with healing (Malanga, Yan & Stark 2015). Further clinical research needs to be done to show the quality of the healing from hot and cold therapy.

Similar to the hot and cold therapy integration, compression is a wonderful proposal and has shown healing and improvement in self prescribed healing however, the evidence in its efficacy is inconsistent and can cause further damage if done incorrectly.

The focus on accessibility and equity is incredibly important. Proposing a design that covers more than the average person is incredibly important with inclusive design principles. Making sure that the brace actually fits is important in effectively helping an injury. Braces are also usually cost-effective and scalable, making production and purchasing affordable for these with low SES. The only downside would be the integration of the other elements often increase production costs, which has a flow on effect to the consumer price.

Your current proposal is strong but the evidence around the inclusion just isn't there yet. Reframing the function and simplifying usability would be a great way to move this forward. This is still a very important topic to cover as people get injured all the time but life doesn't slow down.

Chiu, YC, Tsai, YS, Shen, CL, Wang, TG, Yang, JL, Lin, JJ 2020, 'The immediate effects of a shoulder brace on muscle activity and scapular kinematics in subjects with shoulder impingement syndrome and rounded shoulder posture: A randomized crossover design.' Gait Posture. Vol 79, pg 162-169. doi: 10.1016/j.gaitpost.2020.04.028

Malanga, G, Yan, N, Stark, J 2015, 'Mechanisms and efficacy of heat and cold therapies for musculoskeletal injury', Postgrad Men, vol 127, pg 57-65, doi:10.1080/00325481.2015.992719

Liam06 @ 2026.04.10 2:14 PM

Hi Ash,

Your idea of a shoulder injury recovery device is very practical and is very valuable in the sporting industry, as it focuses on improving recovery and reducing any pain. By including heat and ice therapy is a really strong and effective feature for recovery, as both thermotherapy and cryotherapy are used globally for injury recovery, reducing inflammation and promoting healing (MPC, n.d.).

An issue I have found with this design is that it can potentially restrict natural movement, which isn't ideal, as excessive immobilisation can actually slow recovery down, which contradicts the whole purpose of this design (Biology Insights, 2025). There could also be a potential challenge in designing a single product that is able to suit all kinds of body types and injury severities. Additionally, combining both heating and cooling systems into one device might increase the complexity of the design and the product cost.

I think that this design could be improved by just adding an adjustable or customisable feature so that it can suit different users. Simplifying the temperature system can also improve the usability and the affordability of the product. Overall, your idea is very well thought out and addresses a

very important need, and with some further improvements, it has a very strong potential as a widely used recovery device.

- Liam Lewis

ENEG12007: Creative Engineering – CQU

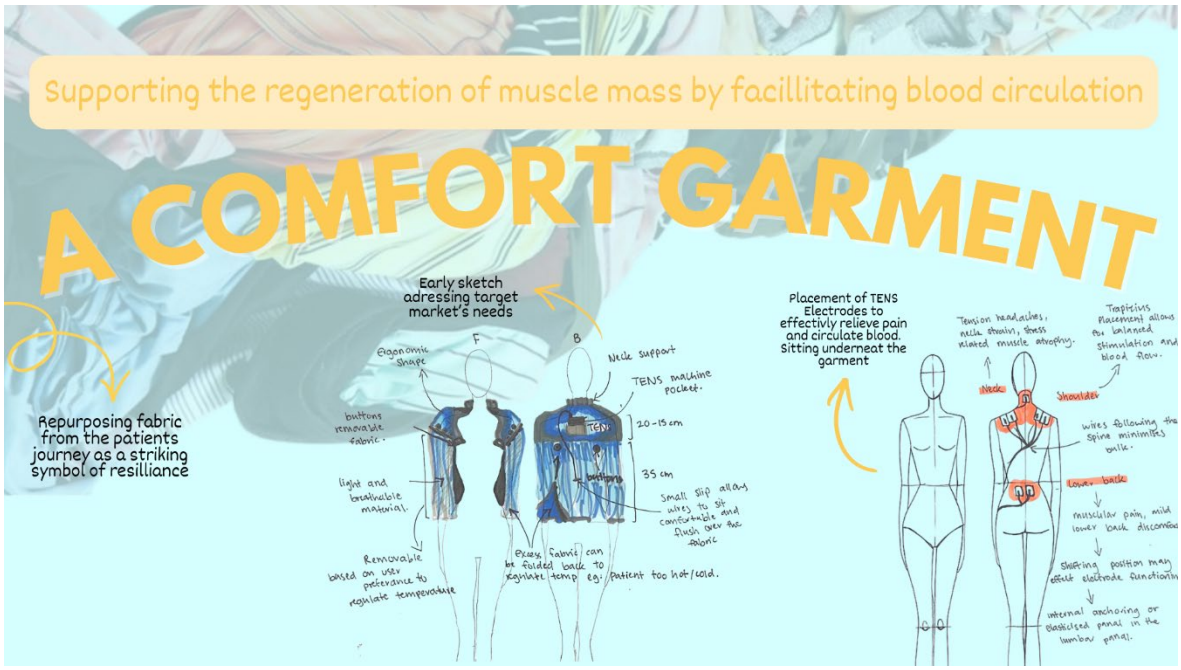
Referencing:

Biology Insights 2025, *What are the consequences of immobility?,* viewed 10 April 2026, What" target="_blank" title="https://biologyinsights.com/what-are-the-consequences-of-immobility/">What">https://biologyinsights.com/what-are-the-consequences-of-immobility/">What Are the Consequences of Immobility? - Biology Insights

More than Physiotherapy Cure (MPC) n.d., *Thermotherapy and cryotherapy*, viewed 10 April 2026, What" target="_blank" title="https://www.morthancurephysio.com.au/thermotherapy-cryotherapy">What">https://www.morthancurephysio.com.au/thermotherapy-cryotherapy">What Are the Benefits of Thermotherapy and Cryotherapy? | Morthan Cure Physiotherapy

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Supporting the regeneration of muscle mass by facillitating blood circulation



20 February 2026 by **Tilly. K** 284

2026

Many chemotherapy patients experience cachexia and peripheral neuropathy as a side effect of treatment. These conditions are estimated to occur in up to 80% of individuals with advanced

cancer, leading to skeletal muscle mass depletion (5-13%), negatively impacting physical function to the nerves that carry messages around the nervous system. I propose to design a garment for patients experiencing weakness, discomfort and stress during treatment that further provides support and relaxation throughout treatment and recovery. The final design will include gentle weight to promote the circulation of blood throughout the body which will stimulate the regeneration of lost muscle.

What do you think?

You must be logged in to post a comment.

Comments

UpRising @ 2026.02.22 4:34 PM

Fantastic idea Tilly. So many important factors effecting your design and lots of potential. What are two or three things you need to help develop this project?

Kind regards,

Tilly. K @ 2026.02.23 4:34 PM

@Uprising, Thank you so much! What a great question. I am seeking collaboration with individuals who have experience with Biocompatible and/or Hypoallergenic biomaterials that are suitable to patients with skin sensitivities. I would also appreciate if anyone has any knowledge or connections to further ways of stimulating blood circulation throughout the body.

Thanks, Tilly.

UpRising @ 2026.02.26 4:34 PM

Such an interesting idea Tilly. Are you thinking of bringing in some haptic design features into the garment?

Homepage - TSL Australia https://share.google/GAMLUrWyaKvwNaAuh

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Tilly. K @ 2026.03.02 4:34 PM

@Uprising Great Idea. I have thought about including a sensory fabric choice around the front panels of the shawl, and the rest will be made from some sort of hypoallergenic biomaterial. Do you have any other recommendations on ways I could incorporate haptics?

Thank you!

Anne Bamford @ 2026.03.13 4:34 PM

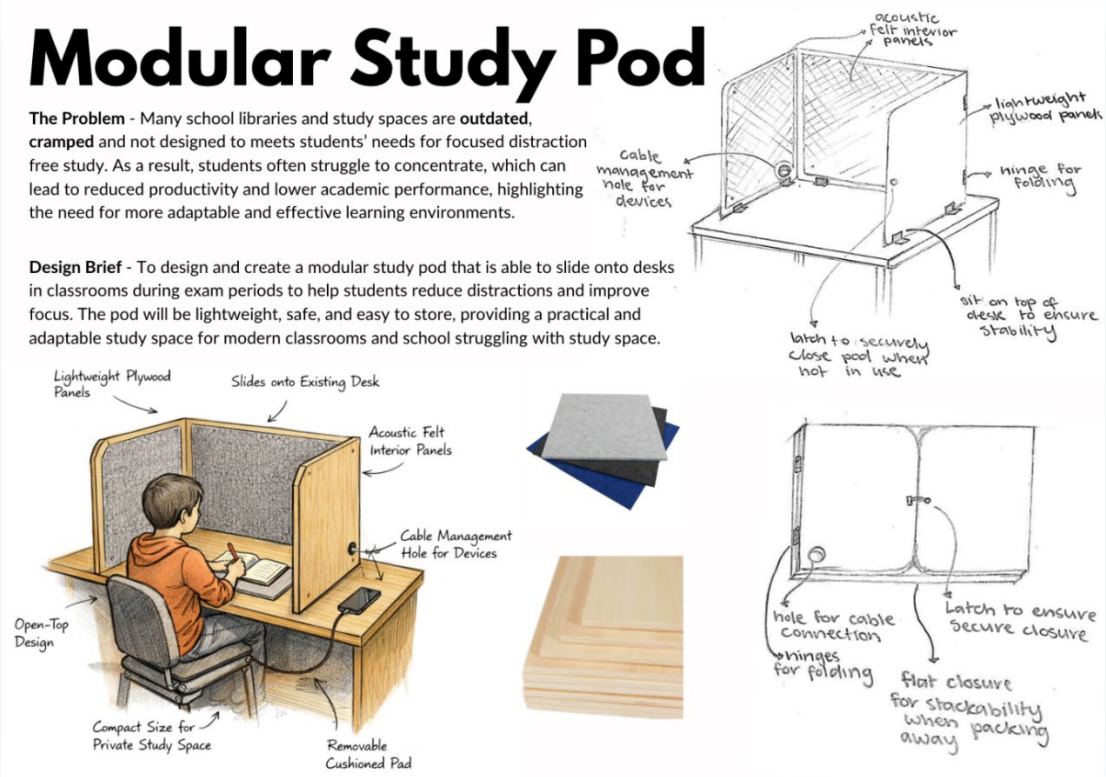
Wow! As Director of the International Research Agency and Adjunct Professor at the University of Sydney, I am deeply impressed by the empathy and insight behind your project. Designing a garment that supports chemotherapy patients experiencing cachexia and neuropathy shows a remarkable commitment to using design to improve real lives. Your idea to incorporate gentle

weight to encourage circulation and comfort is thoughtful and innovative. Projects like yours demonstrate how design can bridge science, care, and human experience. I encourage you to keep exploring how materials, form, and wellbeing intersect.

Tilly. K @ 2026.03.14 4:34 PM
@Anne Bamford, Thank you so much for your comment, I really appreciate it, please let me know if you have any suggestions or refinements that will help me with my project. Kind regards

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Modular Study Pod



20 February 2026 by **Cioara** 8

2026

Creating a portable, modular study pod that slides onto a desk to create an instant, semi-private study space. This will help increase student productivity and results as they are more focused. Additionally, these can be folded down and packed away for when the school does not need them and then set up, during exam or assessment periods.

What do you think?

You must be logged in to post a comment.

Comments

UpRising @ 2026.02.22 6:45 AM

A very interesting idea Cioara. Love the practicality and mobility of your design. Allowing library spaces to become more customised to meet individual's needs. What are two or three things you need assistance with?

Looking forward to seeing your idea develop.

Smriti Tuladhar @ 2026.03.06 4:07 AM

Open-plan layouts in contemporary interiors have increased the importance of carefully addressing issues around acoustics. This design demonstrates a thoughtful approach to both visual and acoustic privacy for focused work while also responding to the needs of a diverse range of neurodiverse students through the flexibility to add or remove the screen as required.

I have a question regarding how the screening element is securely fixed to the desk to ensure stability? Additionally, it would be useful to consider where the screen could be stored when folded. Could this be integrated into the overall design so that the storage solution forms a seamless part of the furniture system?

UpRising @ 2026.03.09 4:07 AM

Good afternoon Cioara.

This company might be able to assist you with those questions,

https://thinkingw.com/collections/thinkingquietly/

TomP @ 2026.04.06 5:44 AM

Hi Cioara,

This is a very interesting idea that would allow schools and libraries to offer quieter spaces without having to purchase additional specialist desks etc. I like the idea of lightweight plywood panels for ease of construction on a small scale. On a larger scale I believe that a plastic outer casing filled with a cork or foam material may further reduce the weight of the product whilst improving on acoustic dampening.

I think adding a handle on the top of the study pod may also help with carrying the pod when it is folded down. Something similar to the plastic handles of a foldable picnic table would be useful.

I'm curious about the mechanism that connects the pod to the desk. From your drawing, it appears that there are some sort of hinge or right-angle bracket that helps the pod connect to the desk. Are these brackets fastened to the desk or do they just sit on top? Do they fold away with the pod when it is in it's closed position? An alternative maybe a small groove cut into the desk that helps the pod locate and remain stable?

Thanks,

Thomas Prescott,

CQ University ENEG12007

MattH @ 2026.04.12 5:44 AM

Hey Ciora,

Nice design and great idea. It will give schools & libraries the option of adding more lower sensory areas with the same amount of space. With society's growing acceptance and understanding of personalised & individual needs around sensory impact whilst studying and/or working. There is even an opportunity to expand into the growing market of co-working spaces, allowing people to set up their space in a way that suits their needs.

Currently, on your prototype drawing, I see 4 angular brackets for stability, perhaps some sort of bracing for the end of the panels facing the student and at the back of the panel, allowing it to sit a specified distance and potentially stop any lateral movement.

and finally, perhaps a carry case for transport, reducing any potential damage during transport and allowing for easy storage.

Looking forward to updates

cheers

Matt (CQU ENEG12007)

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6 > An ergonomic device which reduces strain, improving comfort & stability when lifting cooking pots

An ergonomic device which reduces strain, improving comfort & stability when lifting cooking pots



18 February 2026 by **Annalyse**

7

2026

I am going to design and create a lifting aid that assists elderly users, and individuals with weakened hand and wrist mobility when handling cooking pots. As a result of age and chronic conditions, reduced strength, flexibility, and stability, this can make lifting or controlling this cookware difficult and unsafe. This product will feature an ergonomic, adjustable and heat-resistant design to improve grip, control, and overall safety in the kitchen. I'm specifically motivated by my own grandparents, as my grandfather has Parkinson's disease, making movements involving gripping and maintaining stability difficult, whilst my grandma has arthritis in her wrists, affecting lifting.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2026.02.19 3:24 PM
Wow, love this idea Annalyse. The simplicity of the design and use of soft materials is a perfect match. How can we help. If you can provide a few areas that you need some assistance with, we can better direct resources and support your way. Great idea, and we look forward to seeing develop.

Lauren @ 2026.04.07 4:07 PM
This is such an awesome idea Annalyse!! I think including a lip that holds the lid of the pot or one that can prevent any contents from spilling while being carried could be beneficial. Have you also thought about making a barrier between the pot and the person holding it? There may be potential for the outside area of the pot to burn a person if they carry the pot to close to themselves. Maybe design a small flap that sits between the handles could work? Your design really does have the potential to change lives! I can't wait to see it available in the future!

Clio Hurley @ 2026.04.10 6:47 AM

This idea has a great opportunity to benefit users. This idea could increase the independence of individuals with weakened mobility in their hands and wrists. This device would enable users to carry heavy cooking pots or other cylindrical objects more easily with an adjustable and heat-resistant grip.

A potential problem could be using this device after the pot has been on a heat source. For example, with intense heat radiating off it while filled, it could still be considerably difficult to handle without leaning against the abdomen. We would have to assume that the individual using this would still have ideal core and back strength to carry the weight, which is not certain. If low core strength were the case for many users, device consumption would decrease. Another potential solution or refinement to assist with this could be including heat-resistant material between the pot and the user's abdomen, and exploring possibilities where users do not have ideal core strength.

Implementing this prototype would still significantly improve the independence of those affected. Australian Institute of Health and Welfare (2024) and Woodhead (2022) state that more than 3.2

million Australians are affected by osteoarthritis or similar musculoskeletal disabilities, which is a significant number compared to the total population of Australia.

Overall, this idea has the potential to increase the independence of many users if all constraints are improved.

Clio Hurley from CQU ENEG12007 Creative Engineering Class

William O'Shea @ 2026.04.10 1:54 PM

Absolutely awesome idea, speaking from experience with family members who also have weak wrists, this will likely help a great many who still enjoy cooking even in their older or less able state.

The heat aspect of the idea is a hard one to tackle, as while using heat resistant materials is a great idea, the problem lies in the heat radiating from the pot after being filled. A thicker piece of thick cloth placed on the side facing the person might help with this issue as it will absorb much of the heat that would otherwise be absorbed by the body when carrying close to the chest.

The issue of support is also an interesting one as the wrists aren't always the problem but also the arms and sometimes core. Expanding the mechanism for carrying seems like it would make the invention far more cumbersome, so it might also be helpful to rest some weight at the chest or stomach, potentially thickening the strap so that it would not be uncomfortable to do so.

Love the idea overall, and can't wait to see where you go from here.

Kind Regards

William O'Shea CQU ENEG12007

Kyra Hughes @ 2026.04.10 7:37 PM

Very thoughtful idea with heartfelt intention, Annalyse. Supporting users in small yet meaningful ways such as increasing stability, grip strength and ultimately independence is commonly overlooked. The heat resistance, adjustability and ergonomic focus is well suited to the target user.

One other aspect that would be interesting to investigate would be quick release or one-handed usability, or perhaps a more rigid base wrapped in a soft fabric. This would allow the product to be utilised by users experiencing tremors or limited coordination as fine motor skills aren't relied on.

Overall, this design has strong potential to increase user confidence and day to day independence.

Kyra Hughes from CQU ENEG12007 Creative Engineering Class

MichaelA07 @ 2026.04.12 11:02 AM

This idea is phenomenal, I enjoy seeing ideas like this coming to life.

One potential idea that I had was some sort of way to alleviate shaking/tremors. This could cause spillage or burns, or could cause the user to lose balance, especially if they are already facing

mobility issues. My old folks used to have quite the shaky hands and harms, so I am keen to see a problem like this solved. One potential solution I had thought up was using some sort of gyroscopic design to ensure the pot is held upright despite tremors or shakes.

By doing this it not only makes the device significantly safer, it could also open the door for letting it be used for people with disabilities that disallow them to carry pots safely, like cerebral palsy.

Keep up the amazing work, I'd love to see something like this come to life.

Michael Amedee from CQU ENEG12007 Creative Engineering Class

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melc @ 2026.05.01 5:05 PM

This is a very thoughtful and innovative concept that addresses a genuine issue faced by many elderly individuals and people with reduced hand and wrist mobility.

I think it would be great to look into grip gloves for elderly and the materials used or even potentially looking into emerging technologies such as https://www.popsci.com/technology/robot-hand-crawl/ which is a robotic hand used to hold weight. That is inspired by an Octopus certain insects that use their finger-like limbs to move around and manipulate objects in their environments at the same time. Octopuses, in particular, are capable of opening jars faster than some humans.

You may also need to look into oven mitts or different layers of protection as if carrying boiling water could be dangerous. You could even look into fireman suit material.

You could also consider the shape of the pot and adjusting the lid for extra grip or potentially creating something that could be used to help open and shut the lid. This could be 3d printed or something that can adjust for different pots.

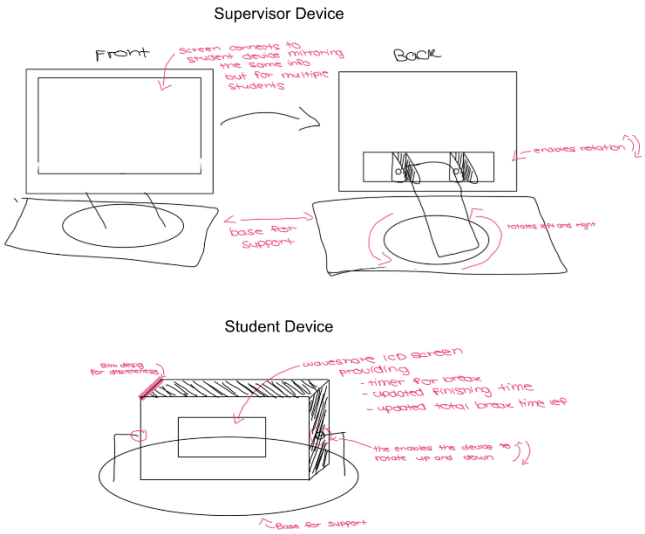
Remember to have lots of experiments & can't wait to see your final idea!

Good Luck :)

Mel

RestRight - Putting your provision's in your hands

RestRight



A discrete, simple and efficient way for students to utilise their rest break provision's without the stress of calculating the break, being judged by others or losing precious exam time.

It is not something we want - but something we need.

Key Features

- ✓ *Real-time Sync:* Displays an active break timer, remaining break balances, and adjusted exam end times for both the student and teacher
- ✓ *Data Logging:* Automatically records start and end timestamps for post-exam verification, supporting supervisor requirements for managing provisions.
- ✓ *Discreet Communication:* Removes the need for hand-raising, reducing the social stigma for students with provisions.

15 March 2026 by **TaraE_0689** 30

2026

Current manual rest-break procedures in secondary education (Years 7-12) frequently cause lost exam time, communication errors, and student anxiety due to the visibility of requesting breaks. My solution is a synchronised Bluetooth device system for students and supervisors that automates the tracking of NESA/school-approved examination provisions, providing real-time data to both parties.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2026.03.16 3:49 AM
Oh I love this. Such a clever idea. I have administrated a lot of exams that had rest breaks and other provisions. It is madness trying to keep up with all the timings. How can we help. What are three things that we can need assist with?

Bree Brown @ 2026.05.01 3:49 AM

Hi Tara,

This is a great idea and definitely resonate with this need.

At my school the breaks are set at a specific time, how with students communicate that they would like their break? Is there a button they press ect.

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melc @ 2026.05.01 3:49 AM

Tara this is such a great idea !

Maybe when it is time for a student to go on break a small light could turn on? and then when their break is over the light turns off?

TaraE_0689 @ 2026.05.03 3:49 AM

@ Bree Brown

Yes! The student device will either have a physical button that they press to alert the teacher they would like to take their break or a button I will integrate into the digital screen

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TaraE_0689 @ 2026.05.03 3:49 AM

@Melinda C

Thank you so much for the idea!! I will have a look into what that would involve. How do you think that would help either you as a student or teacher when taking/logging the rest breaks?

---

melc @ 2026.05.03 7:06 AM

@TaraE_0689

At uni we completed a unit on Arduino circuits, so you could potentially explore creating a simple circuit where a student can discreetly activate a light when they need to take a break. You could also research timed touch lamps that automatically switch off once the break has ended/colour change. You could probably put the light in side a 3d printed button that is discrete for only the person sitting at the desk to see. - I think this would help both students and teachers as currently, teachers often have to verbally notify students about their breaks, which can create noise, interrupt other students during exams and sometimes make students with provisions feel embarrassed or singled out. Also teachers can quickly see which students are currently on a break without having to talk!!

https://www.youtube.com/watch?v=kD_oqtW92O8

Public Education team - IP Australia @ 2026.10.20 6:37 AM
A strong student-focused idea with real potential to help students in exam settings! As your idea develops, and wherever the future takes you, it could be worth exploring how intellectual property (IP) rights might help protect your ideas.

There are some great resources on the IP Australia website to help you learn more about IP and the different rights that may apply.

Great work and best wishes for the future Tara – Lauren (the IP Australia team).

Jewellery for Insect Conservation



24 November 2025 by **Leo** 7

2026

Dragonfly and beetle conservation is critically underrepresented in both media and conservation initiatives, even as their populations decline at alarming rates. As they are bioindicators, these insects reflect the health of entire ecosystems, yet they receive only a fraction of the attention and funding directed towards more popular species.

My goal is to address this by raising awareness and generating support for insect conservation through a range of handcrafted metal, acrylic, and wooden jewellery inspired by dragonflies and beetles.

I am looking for supporters with experience in innovative, sustainable materials and production methods.

What do you think?

You must be logged in to post a comment.

Comments

UpRising @ 2025.11.25 6:32 AM

Fantastic idea Leo. Such an important conversation have.

Have you looked into Biomimicry? https://biomimicry.org/janine-benyus/ https://www.ted.com/talks/janine_benyus_biomimicry_in_action

These guys would be also worth contacting - https://www.thersa.org/regenerative-futures/

Looking forward to seeing your project develop.

UpRising @ 2025.12.02 6:32 AM

Hi there Leo

This episode - S2E1: Biomimicry with Janine Benyus & Dayna Baumeister https://www.thersa.org/podcasts/regeneration-rising/ would be a good one for your design.

Peter Murphy @ 2026.02.11 6:32 AM

This is a thoughtful and timely idea. Using jewellery to raise awareness of insect conservation is a creative way to spotlight species that are often overlooked, despite their importance to the environment and our own wellbeing.

Could you strengthen the impact by connecting the jewellery to real conservation action? For example, pieces could link to citizen science activities or conservation efforts, helping people move from awareness to participation. Projects like Guardians of Earth show how action-based and even gamified approaches can support biodiversity:

https://www.guardiansofearth.io

Peter Murphy RMIT University

PatR @ 2026.05.01 6:32 AM

Very intriguing idea.

I'd love to hear more about your project and how it has evolved.

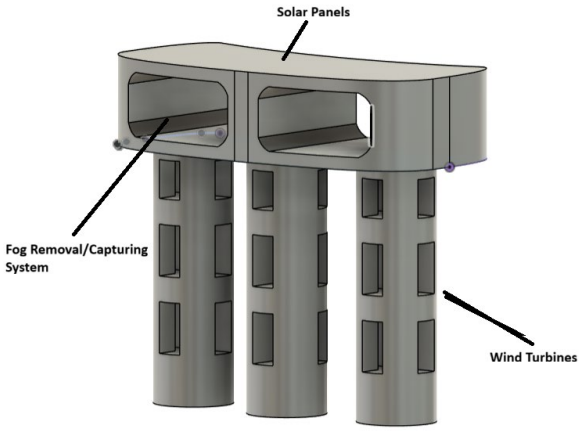
While I don't have a lot of ideas to assist, I would like to state that ensuring that your jewellery pieces are both sustainable in materials and design is imperative. Perhaps consider how you could make these designs appealing to both males and females. In my mind, as a male, I'm thinking about designs such as Lapel pins or Tie clips, which are both very visible and timeless pieces.

Hope this can help in some way,

All the best!!

Patrick R

Fog Guard: Road Fog Remover Reducing Driving Hazards



5 December 2025 by **Keshav** 23

2026

A lack of visibility on the road when driving is a serious road hazard for all drivers, leading to accidents and deaths globally. Current safety measures on cars include fog lights, driving slower, etc, but are all reliant on the driver's reaction time, not addressing the issue. My idea is to implement a device that uses renewable energy to self-power and remove/capture the fog to clear the air. These images are potential ideas of what it would look like, incorporating different renewable energy systems and looks.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2025.12.07 4:24 PM

Wow - what a fantastic idea. I have driven through many areas at night and early morning were the fog is so thick that you can not see the road and headlights makes it even worse. Had never even considered that anything could be done to address this issue. Congrats on taking on such a interesting big challenge. Make sure you are documenting all of your prototypes.

What are two or three big challenges that we can help you with?

Lakshitha-testingnew @ 2025.12.12 6:15 AM
This is a good idea.

Peter Murphy @ 2026.02.11 12:42 PM

This is a bold and creative idea tackling a real road safety issue. Thinking beyond driver reaction time shows strong design ambition, and improving visibility could also help reduce wildlife strikes on rural roads, which adds real value.

One thing to keep in mind is scale. Removing fog by moving air or changing temperature over an open road would be extremely complex and energy-intensive. Because of this, it may be worth exploring a pivot toward using new technology to further adapt vehicles, driver behaviour, or roadside systems that detect fog, hazards and wildlife and clearly warn or impact driver actions, rather than trying to remove the fog itself.

Peter Murphy RMIT University

Rob Eisenberg @ 2026.02.13 12:42 PM
Great idea, very ambitious. Be good to also consider other visual obstructions eg bushfire smoke/pollution (smog) and other related elements of safety eg air quality as possible benefits making this system more versatile and desirable.

Anidha Subramanion @ 2026.03.14 12:42 PM
Fabulous idea and a great safety feature

Bimal Kumar @ 2026.03.14 3:48 PM

Very innovative and practical idea. I like it!

Vishak Mani @ 2026.03.14 12:42 PM
Applications are world wide.. congrats on the idea. Hope it makes the grade !

Ganesh Vedagiri @ 2026.03.15 12:42 PM
Very good..and excellent idea...The concept is very innovative and I'm confident that this may be a game changer if a prototype or test device is made and installed at a prominent location. All the best for Keshav to progress this

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Padma Narayanan @ 2026.03.16 7:47 AM
Brilliant idea with great safety features.

Chris Collins @ 2026.04.07 9:12 AM

This is a very ambitious and forward-thinking concept with a strong focus on real-world impact. Tackling reduced visibility from fog is a meaningful problem. The integration of renewable energy through solar panels and wind turbines shows clear consideration for sustainability and long-term operation without relying on external power sources.

You could explore how the fog removal mechanism works in more detail such as airflow, condensation, filtration, or dispersion methods and how effective it would be across different weather conditions. Another point to consider would be maintenance, cost, and placement strategy such as the spacing between units.

Chris Collins

CQU ENEG12007 Creative Engineering

Philip Stappers @ 2026.04.07 6:30 PM

Hey Keshav, Congratulations on a great idea. The number of annual motor vehicle crashes due to low visibility is more than 32000 crashes worldwide, measured by the annual average from 2019-2023. Fog and smoke related crashes are part of this number and your idea might be a viable solution to reduce this number. However, as other users have mentioned before, a large scale application over a large area would be very resource and energy intensive and may not be feasible. I suggest you get in contact with your local road controlling authority to help you identify critical locations for maximum efficacy. By identifying locations such as intersections, bridges or other high traffic areas where fog or smoke is known to occur regularly, you may be able to make an impact with a small number of devices. Additionally, you could investigate the feasibility of portable devices that could be deployed when needed in areas prone to forest fires.

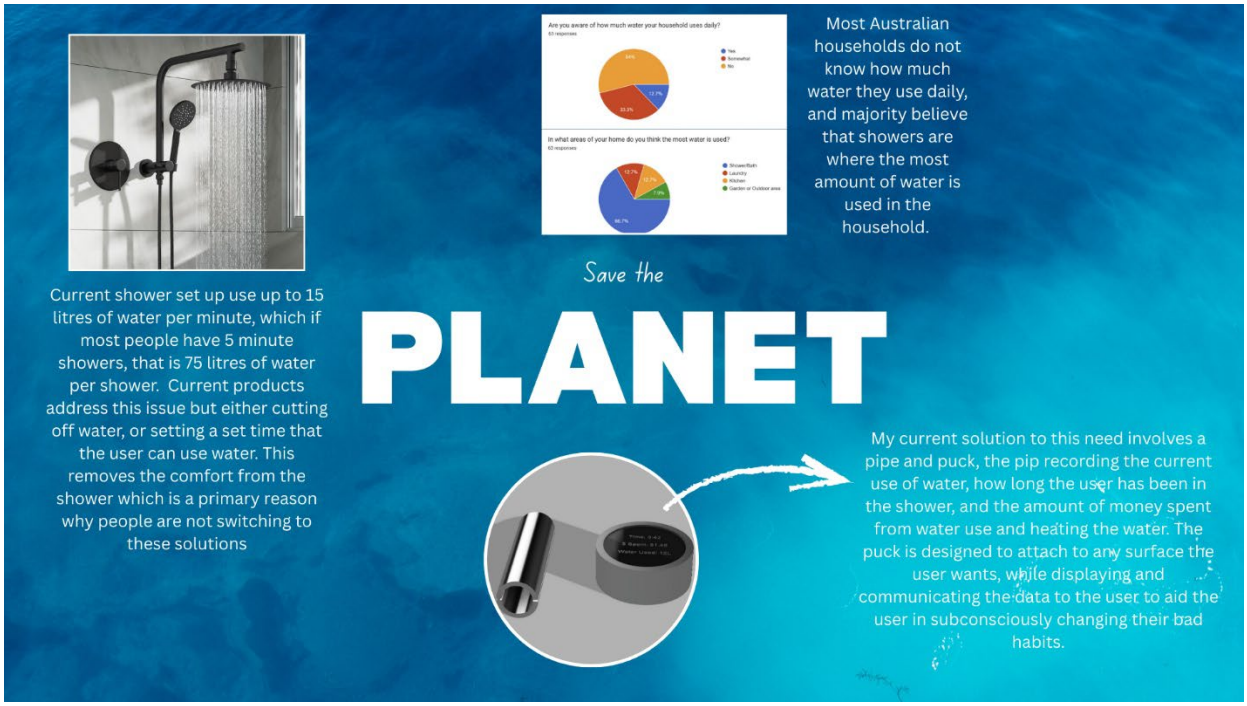
Philip

CQU University

Sean @ 2026.05.01 8:46 AM

I love this idea, living in the mountains myself, the fog can be so bad that you cannot see even a metre front of you. Some more photos and information, like possible locations or materials, might help us to provide some more specific and constructive feedback.

ShowerSense - The future of water conservation



5 December 2025 by **Jarvis N** 7

This project is designed to be a cheaper alternative to pre-existing solutions, aiming to be both cheaper and easier to install. Solutions such as desalination plants are extremely expensive to run. so this project is aimed to be a easy solution to this issue, directly targeting the consumer to help them subconsciously alter their bad habits into positive habits.

What do you think?

You must be logged in to post a comment.
Comments

Peter Murphy @ 2026.02.11 8:14 AM

ShowerSense is a strong and very relevant idea, especially because it focuses on everyday habits rather than large, expensive infrastructure.

You might also explore ways to reward or celebrate water-saving behaviour. Gentle feedback, small milestones, or even playful rewards could make the experience more positive and motivating, rather than feeling like a restriction. Framing conservation as something satisfying or fun could help people stick with better habits over time.

Peter Murphy RMIT University

Smriti Tuladhar @ 2026.03.06 11:00 AM

I would be really interested in trialling ShowerSense within my own household, particularly given the range of perspectives on sustainability that exist among family members.

You may wish to explore behavioural change theories to help frame the underlying motivation for users, beyond simply saving money or water. For instance, considering what might meaningfully engage users could strengthen the value proposition of the product. There may also be potential to incorporate elements of gamification through an associated app to encourage ongoing engagement and behaviour change.

Look at the Green Money Program delivered by Blacktown City Council. The program uses a rewards-based model where residents can earn points through sustainable actions and redeem discounts at local businesses. This could provide a useful precedent for how incentive structures can support sustainable behaviour.

Andy Marks @ 2026.03.18 8:25 AM
This is a great idea, making visible an environmental problem. How might you make it engaging, emotionally resonant or even fun? The reason I ask is that data along (engaging the head) often isn't enough to create change as climate change is sadly demonstrating. Engaging the head and heart could make your design more impactful, for example playing with / create metaphors for the amount of water saved... could for example users be filling up an imaginary swimming pool with the water save, each shower. day by day, week by week, getting closing to filling your first swimming pool? There will be better, more fun and resonant metaphors than my suggestion!

Chris Collins @ 2026.04.08 9:36 AM

This is a really strong concept, your focus on behavioural change rather than just restriction is a good idea. I like how you've identified the problem of low awareness around water usage and designed a solution that encourages users to change habits without removing comfort.

One piece of feedback would be to further develop how the data is displayed to the user. For example, you could show whether it's real-time feedback, colour changes, or set targets such as a recommended shower time to make the behaviour change more engaging.

Chris Collins

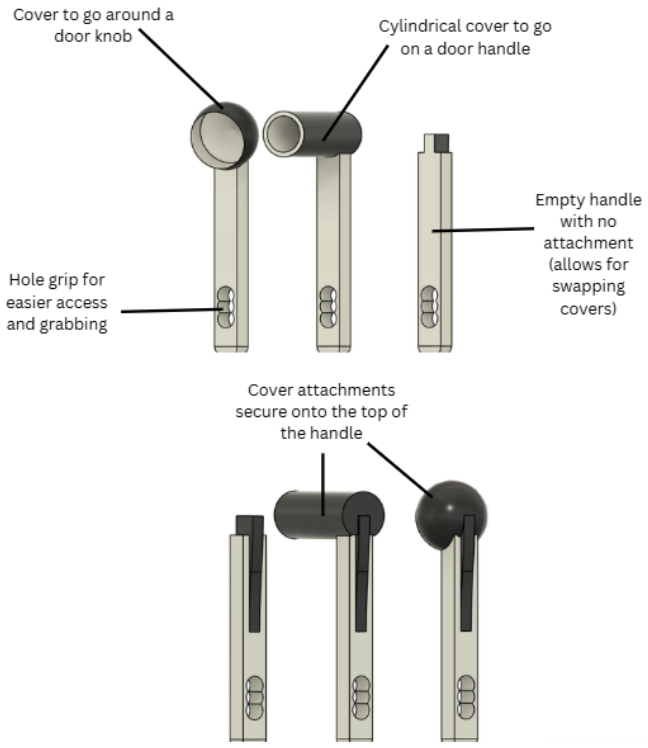
CQU ENEG12007 Creative Engineering

Sean @ 2026.05.01 9:01 AM

Very good concept, I like the call to action and informing the user rather than forcing them into changing routines. A similar idea to some other commenters, a Tamagotchi reward system may also encourage users to adjust their showering routines to save water.

How is the pipe measuring water flow?

Helping Hand - Door opening/closing assister



10 December 2025 by **Jake** 7

2026

This product is designed to assist short-statured individuals, such as individuals with dwarfism and diastrophic dysplasia, with opening and closing doors. The product will attach to door knobs

and door handles and allow short-statured individuals to easily reach and access doors. The product will be portable and will be able to be easily moved to take to new locations with unreachable doors.

What do you think?

You must be logged in to post a comment.

Comments

UpRising @ 2025.12.17 4:06 AM

Such a clever and interesting idea Jake. Powerful in its simplicity and important in its empathic approach.

How can we help? If you can provide two or three issues that you need some assistance with, that would be great.

Looking forward to seeing your project develop.

UpRising @ 2025.12.20 12:54 AM

Was also thinking about the modular thinking you are bringing into the design. Creating a high level of adjustablity provides more of options. It's there a way to make the handle extend?

Peter Murphy @ 2026.02.11 8:03 AM

Helping Hand is a thoughtful and genuinely inclusive design idea.

Making this design 3D printable and easily modifiable feels like a strong direction. It could allow users to adjust, repair, or customise the product to suit their own needs and different door types. This also opens up the possibility of creating multiple versions for different activities or environments, rather than a single fixed solution.

Peter Murphy RMIT University

Chris Collins @ 2026.04.07 9:04 AM

This is a really thoughtful and practical design concept. The idea of interchangeable attachments for both door knobs and handles shows strong consideration for real-world variation in homes and public spaces. The inclusion of a hole grip for easier access is a smart ergonomic feature.

One area you could develop further is how the attachment secures to the door. Developing a locking mechanism or material choice would strengthen the feasibility. Additionally, considering factors like durability, hygiene, and ease of installation.

Chris Collins

CQU ENEG12007 Creative Engineering

Josiah L @ 2026.04.09 4:47 PM

This is a great idea, its simplicity and wide range of door compatibility would promote its use and greatly appeal to the target audience. I especially like the idea that this could be a 3D printed product, contributing to a lower cost.

You may wish to consider whether this design can be adapted to serve a wider audience who also have difficulty opening doors. A few examples are the elderly who may struggle with poor eyesight or arthritis, or those with physical disabilities that limit the dexterity of their arms and hands.

Josiah Lowe

CQUniversity Bachelor of Engineering

Jeram Aguirre @ 2026.04.11 12:36 AM

This is a highly functional and thoughtful idea, Jake. The key strength includes its portability, the ability to attach to both doorknobs and handles, and a simple mechanical design that keeps costs low and reliability high.

However, challenges such as attachment stability, limited compatibility with different door types, and potential hygiene concerns may affect usability.

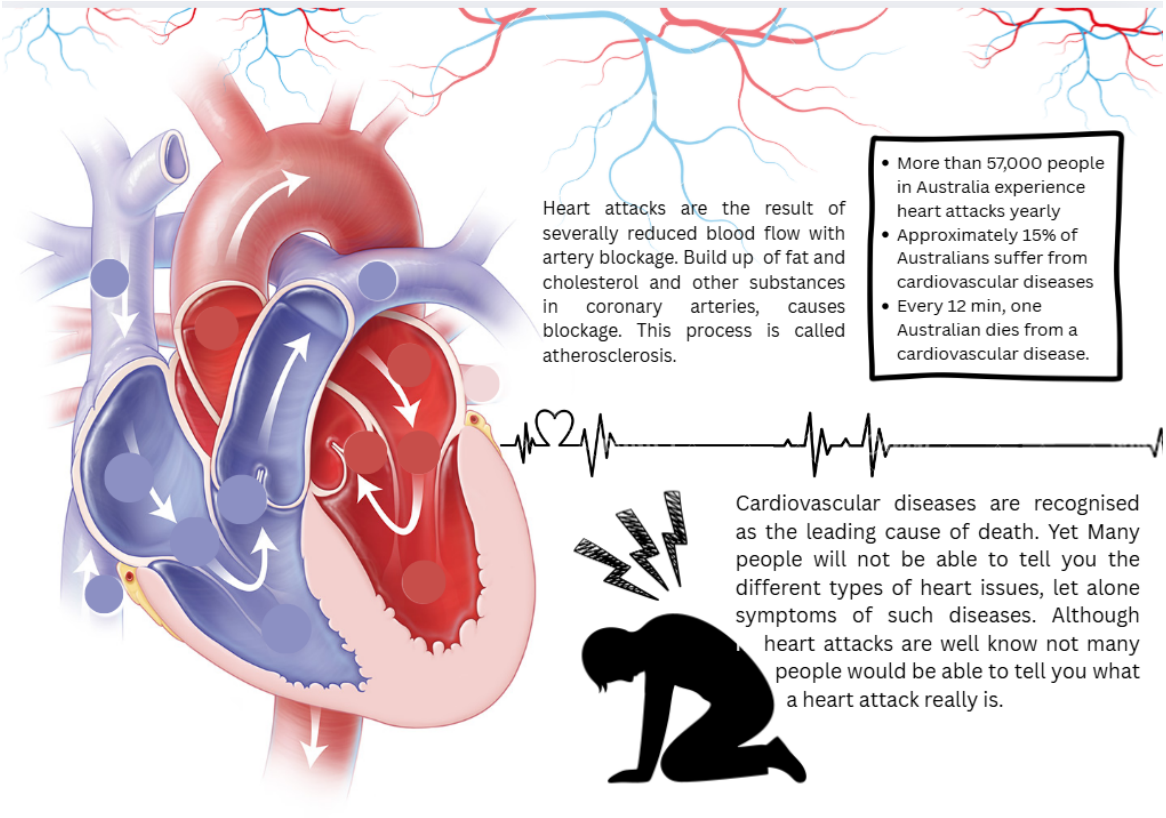
Some future developments may include improving the locking mechanism, introducing adaptable components for universal fit, and enhancing ergonomics for easier one-handed use.

Overall, it’s a strong, innovative concept with great potential to become an effective and widely applicable assistive device.

Jeram Aguirre

CQU ENEG12007 Creative Engineering

The Hearts Architecture Model - Raising Awareness on Heart Attacks



11 December 2025 by **Tatiana D**

18

2026

The heart's function crucial for our survival yet so briefly studied. I am developing a silicone heart model that circulates liquid using pneumatic pumping and mimics the structure of a real human heart. I plan to use silicone to create flexible chambers, stainless-steel sheets for one-way valves and silicone tubing to accommodate blood flow. By adjusting flow and pressure, I want to simulate various heart conditions. I am searching for experts in medical physiology and physical prototyping for feedback on improving my design. My goal is to create an educational tool that raises awareness about heart functions and related issues.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2025.12.17 9:38 AM
A fantastic concept Tatiana. Will you be using a pump to fill the chambers? I have some code

that can help you with that. Also silicone can be tricky to use, esp the mould. Let me know if you need help with those parts, otherwise, excited to see this great challenge come to life.

Tatiana D @ 2025.12.18 10:26 AM

Thank you! Yes, I've been considering either a hand pump, similar to those used for measuring blood pressure, or a mechanical pump that could be programmed to specific functions. My preferences lean towards a mechanical pump although if it doesn't work out I am happy with a hand pump. I am currently looking for pumps online. If you have any recommendations, I would greatly appreciate them.

I have also come to the conclusion that silicone can be challenging to work with. Since I still prefer to use silicone, I've been exploring alternative approaches. I have thought of using liquid silicone to pour into a mould, although I'm not yet sure on how to create the mould itself. Another option was to use a 3D silicone printer, which would be ideal, however, I haven't found anyone who has one yet, and the price of the printer is out of my budget.

Although silicone remains my preferred material due to its durability and flexibility, I am open to any suggestions or alternative ideas you may have.

Peter Murphy @ 2026.02.11 7:59 AM

Great idea. It might be worth leaning further into CAD and 3D printing for this project. If you develop a printable version, educators could download and reproduce it anywhere. With newer flexible 3D-printing materials, you could prototype key components and test how they behave under different conditions. A modular approach, with printable core parts that can be swapped or upgraded, could also make the design more accessible and easier to iterate.

Peter Murphy RMIT University

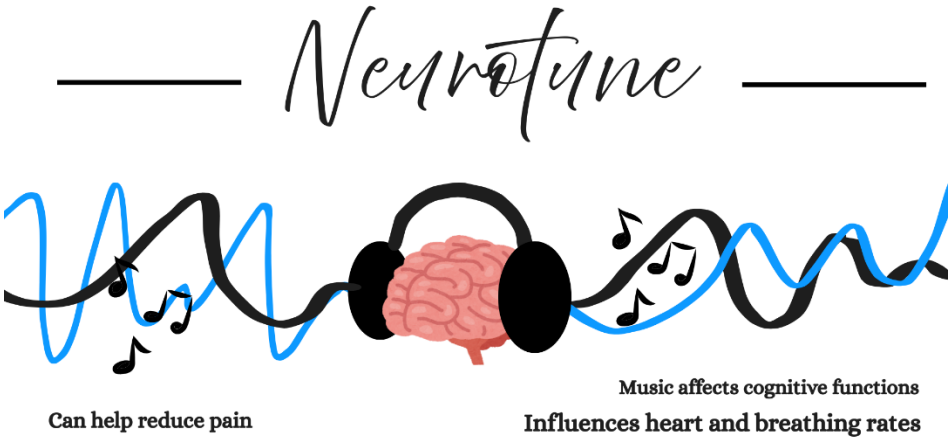
Angelad @ 2026.03.18 11:30 AM

Hi Tatiana, your idea would be an indispensable teaching resource in schools and universities. Perhaps if all schools could access an affordable model heart, this aspect of health would be improved through education and awareness. The anatomy models currently available are very expensive, preventing many schools from purchasing them. These models also don't demonstrate what you are proposing. Good luck with such a challenging and significant project!

KylieT @ 2026.03.18 2:03 PM

Dear Tatiana, I did write a response that is not coming up, so there may end up being two entries... This is very important work for parents of heart kids to understand what is happening for their child and when the heart is not functioning the way it should, giving them confidence in their actions to call an ambulance based on concrete evidence to the contrary of how a healthy heart should be behaving. Additionally, important work to teach about heart attack prevention through highly visual understandings about the heart. The product could save many lives. All the best in developing it and raising awareness. Reach out to paediatric cardiologists and see what support you find in developing your project. Kylie

Neurotunes- creating the perfect playlist tailored to your brainwaves



11 December 2025 by **Tashvi M** 23

2026

My project aim is to track brainwaves to monitor how they respond to different genres of music in order to create an app that compiles the data into exclusive playlists based off personal responses.

This could be used to help people with mental disorders, create personalised therapies, and help people who are unable to express themselves, such as individuals in a coma. My goal is to use this project to aid people regulate emotions and create a meaningful impact in their lives. I seek feedback on the feasibility of this project and any adaptions which can be made.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2025.12.12 4:58 PM

Wow, such a great idea TashviM. So many applications here, and so many ways you can take this. What hard ware do you have access to, to do the scans?

Depending on the costs of the scanner, I think this would be very feasible.

Looking forward to seeing your idea come to life.

Tashvi M @ 2026.02.10 7:49 AM

Thank you. I was thinking of contacting some institutions to use their Electroencephalogram (EEG) as they can be quite expensive. I have also come across an issue; everyone's brainwaves are unique like their fingerprints which means the project would have to be a bit more generalised to be adjusted than previously expected. What changes do you think could be made?

I am also looking into Functional Near-Infrared Spectroscopy (FNIR) as that could be a potential substitute for an EEG, but might not provide me with adequate results.

I would greatly appreciate any recommendations and feedback.

Peter Murphy @ 2026.02.11 7:49 AM

Neurotunes is a really exciting and caring project idea. You are clearly focused on how technology can support wellbeing, emotion, and connection, which gives the work real purpose.

Your concept connects strongly to the documentary Alive Inside, which shows the powerful effect music can have on people with dementia, check out the effect on Henry :-)

https://www.youtube.com/watch?v=5FWn4JB2YLU&t=236s

Peter Murphy RMIT University

Tashvi M @ 2026.02.27 4:37 PM

Thank you Peter. The video shows a powerful representation of what music can do for people. Thanks for sharing it and I appreciate the support!

I have finally found a substitute for an EEG, it is this device called Muse 2 which would allow me to obtain a lot more data and have frequent access to my brainwaves. This means I will soon be able to start my testing which is very exciting :)

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lachlan_the_cool_kat @ 2026.03.18 4:37 PM

This is a really cool project and it has a lot of applications. Hope this all goes well for you :)

Angelad @ 2026.03.18 4:37 PM

Hi Tashvi, your project shows how creativity and science can work together to improve the lives of so many people. I'm particularly interested in the application of music to help comatose patients. My father was in a coma for a long time, and he is also a musician. I'm sure your concept could have helped him through those weeks, as there was a level of consciousness or brain activity while he was in that state. Good luck with your project!

KylieT @ 2026.03.18 4:37 PM

Tashvi, what wonderful and important work! My mum, who is a music therapist, did her PhD on the influences of choir participation on the elderly re memory in patients with dementia. She found that memory recall affected the brain waves and ability to connect with the present through music. Let me know if you would like to connect with her and her research, it was quite a

profound study. I can see far reaching benefits for your research for trauma informed practice, well done! Kylie

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Tashvi M @ 2026.04.01 4:43 PM
Thanks for the support Lachlan, I appreciate it.

Tashvi M @ 2026.04.01 4:43 PM
Thank you Angela. That must have been such a difficult time. It's stories like yours that make me look at the potential for music to reach people in those states and to design a product/service that could offer a level of comfort and connection. I hope my project can contribute to helping others in similar situations. Thank you again for your support and let me know if you have any suggestions or adaptations you think I should make to my project.

Tashvi M @ 2026.04.01 4:43 PM
Thank you for your encouragement Kylie. It sounds like your mother has had lots of experience in the field that I am looking into. I would greatly appreciate the opportunity to learn more about her research, and I would be very interested in connecting with her if she is open to discussing her findings further.

Aqua Nova- river water filter



14 December 2025 by **Emily B** 18

2026

I know I want my project to be centred around wildlife preservation as it is something I am very passionate about, which lead me to the idea of creating a water filter for my local creek which is home to the endangered species the platypus. My plan is to foster a safe environment for local species by designing and implementing a structure to filter out microplastics and harmful oils, specifically targeting pollutants affecting platypus. I would love some feedback from professionals who know anything about engineering a water filter or suggestions for sustainable materials I could incorporate.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2025.12.15 5:57 AM

A fantastic idea Emily. Let me find a few material options and organisations doing some work in this area.

Peter Murphy @ 2026.02.11 5:57 AM

Aqua Nova is a really thoughtful and well-chosen project. Grounding it in local wildlife, especially an endangered species like the platypus, gives your design real purpose and clear direction.

You do not need to be an engineer to do this well. There is a lot to learn from natural water filtration systems and First Nations knowledge connected to the specific Country you are working on. Native plants and natural materials can help filter pollutants while also supporting biodiversity, not just water quality.

You might also find inspiration in the Reimagining Birrarung project at the National Gallery of Victoria, which explores river health through design and future-focused thinking: https://www.ngv.vic.gov.au/exhibition/reimagining-birrarung/

This is a strong, caring idea. Keep building on it and let ecological thinking guide your design choices.

Peter Murphy RMIT University

Angelad @ 2026.03.18 11:16 AM
Hi Emily, your water filter project is sorely needed to protect animals and plant life. It's a concept that will mitigate much of the harm caused by waterway pollution. Healing fragile environments, such as your local creek, has far-reaching benefits for all life, along with our long-suffering platypus. It's great to see projects that will improve the health of our planet and help reverse the damage caused by plastics, oil, and other pollutants, for which humans are responsible. Good luck with your project!

KylieT @ 2026.03.18 1:53 PM
Thank you for caring for the local wildlife through this project, it is such important work - it doesn't take much to see the contaminated water the platupus and other species are facing. Your research can go a long way in sharing data with Council to secure funds for more wildlife preservation work into the future. Councils tend to have a lot of resources around what has been done so far - let that help inform your research and improve on it in this most important and delicate issue. I would love to hear more about the engineering involved in such an amazing concept in action. Reaching out to universities will help. Sustainable products hopefully can be locally sourced through caring organisations. All the very best with your research on this delicate and important issue for a vulnerable species. Kylie

Using water-based protection to shield homes from bushfire heat and embers



2 February 2026 by **Keira** 21

2026

This project explores a design solution aimed at reducing the risk of homes being destroyed during bushfires through the use of a water-based protective structure. The design focuses on creating a system that can shield an entire home from extreme heat, airborne embers, and direct flame exposure by using water as an active protective element. The project will investigate how such a structure could function in real bushfire conditions, including feasibility, shape, materials, and integration with residential buildings in high-risk Australian environments.

What do you think?

You must be logged in to post a comment.
Comments

UpRising @ 2026.02.02 8:46 AM

A fantastic concept Keira. Would be fascinating to see it tested on a small scale? How can we help? What are three things industry / business or community can do to assist you with developing your project?

Looking forward to seeing your concept develop.

Peter Murphy @ 2026.02.11 7:33 AM

This is a really strong and thoughtful design idea focused on a serious Australian challenge. Using water as an active protection system shows clear systems thinking and a genuine concern for safety and resilience.

As you move forward, it will really help to keep power supply, cost, and installation in mind, as these will influence many of the design decisions you make along the way. If the grid is unavailable during a bushfire, exploring batteries, off-grid charging, or pre-charged systems could be important. It is also worth thinking about how the system would be installed, whether it is built into a home or designed to be deployed when needed.

Treating these constraints as part of the design challenge will strengthen the project. Exploring shared or council-owned systems could also open up interesting and realistic directions.

This is a meaningful and promising concept. Keep building on it and let real-world conditions shape a practical and impactful design.

Peter Murphy RMIT University

Rob Eisenberg @ 2026.02.13 4:58 AM

Love this idea - much safer than standing there holding a hose! Urgent for our current predicament.

What are the local government (and state/federal government) laws to be optimised, when this system is feasible and proven, to enable rapid scaling nationally (without administrative barriers) in bushfire prone regions.

DanielMackenzie @ 2026.04.01 5:16 AM
ID: 12293861

I think this is a really interesting idea and it’s great to see a design tackling something as serious as bushfires, especially in Australia. Using water as a protective barrier is a clever approach and it definitely shows some strong innovative thinking.

That said, I do have a few concerns around how practical it would be in real situations.

The first thing that comes to mind is cost. Systems like this could end up being quite expensive to install and maintain, which might limit who can actually use it. A lot of people living in bushfire-prone areas, especially in rural settings, may not have the budget for something like this.

Another big concern is the reliance on power. In bushfires, power outages are pretty common, so unless there’s a backup generator, the system might not work when it’s actually needed most. That kind of dependency could be a major weakness.

There’s also the issue of water availability. Bushfires often happen during drought conditions, so relying on large amounts of water could be risky (Abram et al., 2021). In rural areas especially, water supply isn’t always guaranteed, and even if people have tanks or dams, it might not be enough to sustain the system for long periods.

I also wonder how well this would scale. A lot of properties in bushfire areas aren’t just single houses, they’ve got sheds, equipment, and other structures. Protecting everything with a system like this could become complicated and expensive pretty quickly.

When you compare it to more traditional approaches, like clearing vegetation, using fire-resistant materials, or installing ember-proof screens, those options seem a lot simpler, cheaper, and more reliable because they don't rely on power or water (Douglas, 2020).

Overall, I think the idea has potential, but it seems like it might only be practical for people who have access to things like backup power and a large, reliable water supply. That could limit its usefulness for a lot of the people who are actually most at risk.

References:
Abram, N.J., Henley, B.J., Sen Gupta, A., Lippmann, T.J.R., Clarke, H., Dowdy, A.J., Sharples, J.J., Nolan, R.H., Zhang, T., Wooster, M.J., Wurtzel, J.B., Meissner, K.J., Pitman, A.J., Ukkola, A.M., Murphy, B.P., Tapper, N.J. and Boer, M.M. (2021). Connections of climate change and variability to large and extreme forest fires in southeast Australia. *Communications Earth & Environment*, [online] 2(1). doi:https://doi.org/10.1038/s43247-020-00065-8.

Douglas, G. (2020). *Bushfire protection | YourHome*. [online] www.yourhome.gov.au. Available at: https://www.yourhome.gov.au/live-adapt/bushfire-protection.

Greg Hughes @ 2026.04.07 7:40 PM

Hi Keira,

This is a high value, high impact design that has the potential to save lives and built infrastructure across the world. Using water spray or misting as a protection device as noted by Costin (2021) as a highly effective measure for building protection and preservation in bushfire prone areas, specifically against ember attack.

Some considerations around implementation would be ensuring that the materials used can withstand the intense heat such as the piping used to convey the water and the misting heads used to protect the building as well as shielding pumps and energy sources.

It is noted that the majority of built infrastructure in bushfire prone areas are not typically reliant on a town water supply and often use on site water tanks (some have dams which could be used - even gravity fed in some cases depending on topography). Noting the limited supply, this could lead to a lack of water supply to sustain an effective defense for the required duration, you could consider the use of heat sensors to control solenoids releasing water when it is most effective as well as water wise misting or sprinkler heads which could also be refined with some testing for efficient use of available water vs level of bushfire attack.

The use of solar energy could be used to power these systems, remembering when these types of events occur the electricity grid often goes down (in major fires) and depending on the set up (non-passive powered systems) may become an issue.

Considering the above could also assist in sustainable management of water in bushfire events, as Costin (2021) discusses the use of water in these type of defense systems without any controls on usage can lead to fire fighters attending sites that have no water due to uncontrolled releases in these type of systems, where someone turns it on when they leave and exhausts the water source before the fire has approached or similar.

I look forward to seeing how you go with this one, I think a small prototype could be easily built to prove concept and would demonstrate to investors that its feasible and scalable. Amazing work and good luck with your project.

Greg Hughes.

ENEG12007 Creative Engineering - CQU

References: Costin, GP 2021, ‘Bushfire: Retrofitting Rural and Urban Fringe Structures—Implications of Current Engineering Data’, *Energies (19961073)*, vol. 14, no. 12, p. 3526, viewed 7 April 2026, <https://research.ebsco.com/linkprocessor/plink?id=8d1f5c0b-dd71-305c-b9e1-1e04ee3d3543>.

Xavier Elgowhary @ 2026.04.10 3:07 PM

Hi Keira,

Your idea of using a water-based protection system to defend homes from bushfires is very innovative and extremely relevant, especially in Australia, where the risk of bushfires is tremendous. The use of water as a protective barrier is very clever, as moisture reduces ignition risk and protects surfaces from any radiant heat or ember attacks (Williams, 2025).

One of the main challenges I noticed with this design is definitely its feasibility regarding the water supply and the reliability of the system during said conditions. In rural areas, water pressure and its availability can be limited during a major fire (GVW, n.d.). Additionally, the process of installing this system on existing homes will potentially reduce accessibility to many users due to its overall cost.

I think this design could be improved by incorporating other water sources, such as rainwater tanks or maybe even backup systems, that way it will improve the reliability. It might also be useful to explore cost-effective variations of this design, so that more users can access the system. Overall, your idea addresses a very common issue, and with further development, it could definitely become a highly valuable bushfire protection solution.

- Xavier Elgowhary

ENEG12007: Creative Engineering - CQU

References:

Goulburn Valley Water (GVW) n.d., *Your water supply in a fire*, viewed 10 April 2026, Your" target="_blank" title="https://www.gvwater.vic.gov.au/service-interruptions/emergencies-and-natural-disasters/your-water-supply-in-a-fire">Your">https://www.gvwater.vic.gov.au/service-interruptions/emergencies-and-natural-disasters/your-water-supply-in-a-fire">Your water supply in a fire | Goulburn Valley Water

Williams, JL 2025, *Ember-resistant zones in firescaping: Design principles, material choices, and plant strategies*, Gardenot, viewed 10 April 2026, Ember-Resistant" target="_blank" title="https://gardenot.com/firescaping/ember-resistant-zone">Ember-Resistant">https://gardenot.com/firescaping/ember-resistant-zone">Ember-Resistant Zones in Firescaping: Design Principles, Material Choices, and Plant Strategies / gardenot.com

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Keira @ 2026.04.15 8:15 AM

@UpRising

Thank you, I really appreciate your feedback.

Testing is something I am very interested in developing further, particularly on a small-scale prototype to evaluate how effectively the system can distribute water and maintain coverage under different conditions. This would be important for validating the design rather than relying only on theory.

In terms of support, there are three main areas where industry, business, or the community could assist:

1. **Access to testing environments and feedback**
   Opportunities to test a prototype in a controlled setting, or input on how these systems are evaluated in real-world conditions, would help ensure the design is practical and relevant.
2. **Materials**
   Access to or advice on suitable materials, particularly those that are heat-resistant, durable, and appropriate for outdoor conditions, would help refine the design.
3. **Insights into real-world constraints**
   Understanding factors such as installation challenges, user behaviour during bushfires, and limitations in existing home protection systems would help ensure the solution is realistic and usable.

I would be very interested in any advice or direction you could provide in these areas as the project develops.

Town Hall Station redesign: for user wellbeing



8 February 2026 by **Alanah** 12

2026

Between 2001-2023, 1,685 suicides occurred on Australia's railways (Tracksafe,2024). This alarming statistic motivated me to explore how transport environments influence the well-being and safety of commuters. My project aims to redesign the underground platforms of Town Hall Station to create a more supportive commuter experience.

To support my project, I am seeking access to station plans, user groups for surveys, advice on materials, lighting strategies, biophilic integration, and well-being-centred design. Any professional support would be greatly appreciated.

UPDATE: If you have a moment, please complete this short survey on my initial ideas.

https://forms.gle/CQayEQr8QfwyUUXv8

What do you think?

You must be logged in to post a comment.
Comments

Peter Murphy @ 2026.02.11 8:49 AM

This is a really strong and thoughtful design challenge. You have chosen a real issue that matters, and why the station environment can influence people's wellbeing and safety.

Your idea connects well with a previous station design competition in Melbourne, Station Ideation, run by Dept of Ed and DATTA Vic. Some of the archived resources may be useful for inspiration and process as you develop your ideas: https://www.datta.vic.edu.au/Station-Ideation

Keep building on this direction, stay focused on the commuter experience, and use your design decisions to show how public transport spaces can better support people and the planet.

Peter Murphy, RMIT University

Steve B @ 2026.02.16 2:16 PM

Alanah, this is a great topic to explore and has broader applications beyond mental health. I can't provide access to plans and the like, but I can offer the following advice:

- you are attempting to design an intervention at the very critical moment in the person's decision-making. Changes to the environment can help, and you should consider clear links to services like Lifeline for people actively considering self-harm;

- we know that people in underground environments respond positively to the introduction of natural lighting, and living things such as plants, and also to water and natural sounds. Lighting and other techniques to minim natural environments are a reasonable backup plan;

- warm materials, such as wood and sandstone, can improve people's sense of calm and well-being

- increasing the oxygen content in the air, and vigorously reducing the levels of CO2 (a real problem in a busy, crowded, underground space like Town Hall station) can also help improve general sense of wellbeing.

Other things to consider:

- Town Hall is full of people, but that can actually contribute to a sense of loneliness and isolation. There are people everywhere, but you have no-one to talk to.

- Take a look at the new Metro platforms and the way in which the tracks are screened off. Doors only open when the train has arrived and reached a stop; there are no gaps between train and platform.

Steve

Alanah @ 2026.02.27 4:58 AM
Thank you @Peter Murphy. This is a really interesting resource and has inspired perspectives and designs I wouldn't have thought of. Can't wait to add these insights to my folio, thank you for the advice!

Alanah @ 2026.02.27 4:58 AM

Thank you, @Steve B,

Your point on Lifeline inclusion and possible solutions for loneliness is very interesting, and I will investigate this further to find ways I could integrate this into my designs. I have researched biophilic design inclusions in train stations and can't find many examples of living or moving elements in underground environments. I'll need to research further to see if it's feasible for Town Hall Station; however, sensory features, lighting or natural materials, like you pointed out, might be more maintainable. Thank you again for your advice; it will inform parts of my research and help with initial designs greatly. :)

Anne Bamford @ 2026.03.13 4:58 AM
As Director of the International Research Agency and Adjunct Professor at the University of Sydney, I commend the courage and care behind your project. Addressing wellbeing and safety in public transport environments is both urgent and meaningful. Your focus on redesigning Town Hall Station through lighting, materials, and biophilic design shows how thoughtful environments can influence how people feel and behave. Projects like yours demonstrate how design can support mental wellbeing and community safety. You might also consider reaching out to**Steve Baty**, who contributed to human-centred design for the Sydney Metro; his experience could offer valuable insights as you develop your ideas.

Kieraley @ 2026.04.05 3:13 PM

Hi Alanah,

As someone who has worked in the rail industry for years, I have much respect for rail safety. This is a fantastic project to undertake.

You may find this study on the impact of installing blue lights on station platforms as a suicide prevention method useful.

https://www.sciencedirect.com/science/article/pii/S0165032712005873

Additionally this PDF regarding Sydney Metro West design guidelines.

https://media.caapp.com.au/pdf/53518w/8e61e9fc-81a7-4ce9-9d8b-7d0d4a874070/Appendix%20E%20-%20Design%20Guidelines.pdf

Particularly sections 3.2.6 Walls, ceilings and platform screen doors and 4.1.7 Lighting, it doesn't give specifics but may give you an idea of the design expectations of a passenger railway station.

I may be biased due to my industry experience but I do believe physical barriers to be the most effective control, they are also useful in preventing accidental person vs. rollingstock interactions which inevitably have the same consequences.

Kieraley Winter

CQU ENEG12007 - Creative Engineering

Alanah @ 2026.04.29 7:31 AM

Hi @Anne Bamford

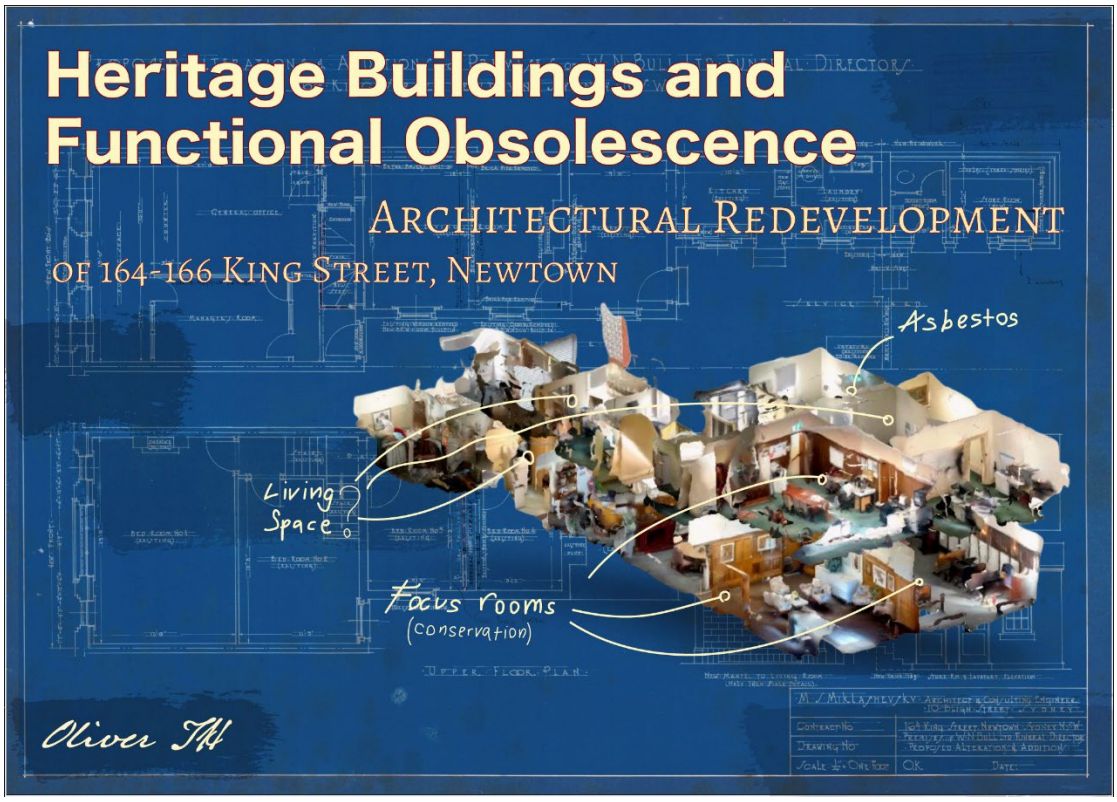
Thank you so much for your comment! I'll definitely follow up on those contacts for further feedback.

Alanah @ 2026.04.29 7:38 AM

Thank you, @Kieraley.

I explored the Blue Light suicide prevention report as part of my lighting research and found it really interesting. I also really appreciate you sharing the Metro guidelines, this will be extremely valuable as I continue refining and developing my design.

Heritage Buildings and Functional Obsolescence



16 February 2026 by **Oliver TH** 18

2026

This redevelopment intends to be an example for brighter, more thoughtful redevelopment of properties like 164-166 King Street, where deep rooted history in subcultural regions are becoming at risk of underinvestment and selective neglect: dereliction or gentrification. In regards to a greener and more community focused future, targeting the heart of this beast of a project lies in discovering the true needs of the community, creating a solution and being able to crafting a model well enough to reflect the idea's quality to the council, the property owner and future investors in similar areas.

What do you think?

You must be logged in to post a comment.

Comments

CARELINK - Greater Remote Domestic Care



16 February 2026 by **Ashton**

24

2026

My grandfather's battle with Alzheimer's and Parkinson's disease profoundly affected both his independence and my grandmother's role as his carer. In his later years, she was unable to leave the house without additional support, significantly limiting her own freedom. This experience has inspired me to design an assistive device that enables simple one-way communication, remote voice prompts, and alerts, proposed to increase safety, reassurance, and independence for both patient and carer.

To help develop my design, I am seeking advice/support in coding, software development and electronics. Additionally, suggestions from anyone familiar with hospital, and residential care environments would be appreciated.

What do you think?

You must be logged in to post a comment.
Comments

RUN AWAY



18 February 2026 by **Emily R**

506

2026

My project intends to develop an innovative biomechanical device to prevent and manage athletes shin splints, providing continuous pain relief and recovery support before, during and after performance. As an athlete who has consistently struggled with shin splints, I recognised a widespread need particularly when competing for Australia in Canada in 2025, where 80% of my 14–19-year-old squad experienced the same injury. With limited effective treatment options available, I'm developing a compression sock featuring active cooling technology and interchangeable supportive insoles for spike shoes, reducing pain, enhancing stability, and preventing further injury so athletes are not restricted by preventable setbacks.

What do you think?

You must be logged in to post a comment.
Comments

Emily R @ 2026.02.18 6:34 AM

I am seeking direct collaboration with biomedical designers & industry professionals to technically develop and refine the active cooling system within my compression sock. Specifically, I require expertise in thermoregulation technologies, material properties, and integration methods to ensure the cooling mechanism is effective, durable, and safe for athletic performance. Additionally, I need guidance in formulating and manufacturing performance grade gel components for the interchangeable insoles, including advice on shock absorption, pressure distribution, and long-term wear resilience. Finally, I am seeking support from textile engineers experienced in compression fabrics to advise on graduated compression mapping, material selection, and fabrication techniques to ensure biomechanical accuracy and optimal muscular support within my design.

Martiya @ 2026.02.19 5:45 AM
This is amazing! Such a smart idea that would be so useful to so many athletes!

Sofia @ 2026.02.19 7:30 AM
Wow this is such an incredible design Emily :) What an innovative way to support athletes and make sport more accessible to those with this injury! FANTASTIC!!!!!

Audrey @ 2026.02.19 7:08 AM
Such a great idea and design Emily!! :)

Blaise Atkinson @ 2026.02.19 12:21 PM
This is SO SO good Emily!!!!! this will help out so many people!

ava rose:))) @ 2026.02.19 2:42 PM
go girl!!! so talented xx love your creativity and dedication xo

EllaP @ 2026.02.20 7:14 AM
So proud of you emily, can't wait for future designs! Your amazing!! I love you, well done! Keep it up!!!

Yianna Kalaitzoglou @ 2026.02.20 7:41 AM
this is such a good idea, helpful for so many athletes - fire!!

Alana @ 2026.02.23 3:51 AM
Omggg such a good idea I know so many girls this would help!!!

Sienna @ 2026.02.24 6:40 AM
This is soooo good and so useful for athletes!

Ashleigh @ 2026.03.16 4:21 AM
This is such a great idea !!!

TakingStuffFromTheEWasteCentre @ 2026.03.19 3:57 AM
Good work

Nicola R @ 2026.03.19 4:34 AM
Amazing idea Emily and such a great need for this. Hope you can get some support on board to develop this further.

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charlie :D @ 2026.03.22 2:57 AM
This is such an amazing idea, this is definitely a winning design. :) Great job!

Multifunctional Modular Bag - Transitioning from School to the Gym



18 February 2026 by **Lily S** 14

2026

My project reimagines the everyday school and gym bag through a sustainable, multifunctional design. Designed for students aged 15–25, it aims to make switching environments seamless, while reducing waste by incorporating recycled textiles and repurposed materials from old bags. The design focuses on durability, comfort, and organisation, supported by targeted research, user feedback, and personal observations at my local gym. It aims to prove that sustainability and style can coexist, and that thoughtful design can make everyday routines simpler, smarter, and more responsible.

What do you think?

You must be logged in to post a comment.
Comments

Andy Marks @ 2026.03.18 4:38 AM
Great thinking on a multi-function, multi-use bag that incorporates sustainable fabrics. You could have a think about a challenge... how do we reduce the number of bags we need and keep them for far longer then currently. My son's school bag broke and I took it back to the shop & rather than fix it, they thought it cheaper to replace it, giving me a new one and suggesting the broken bag was thrown away. I did however manage to get it repaired (the zip) for about $30. Why don't you challenge your design to be a bag that is designed for repair and replacing parts that wear? Zips are definitely a component that breaks, but what other components can the you design out wear and tear? Good luck, you're clearly a talented designer!!

Jess01 @ 2026.04.05 7:46 AM

The design of the backpack, I find very functional for high school aged students particularly extra-curricular activities.

One problems experienced with backpacks is that we can't find what you have there! The section where the laptop is located, an added feature would be a built-in padded laptop sleeve of quality top and bottom to eliminate the extra laptop sleeve required. This would significantly help reduce overall weight and bulk in the bag.

The separate book compartment is also well designed and practical for everyday school use. In addition, the provision for a lunch box is appreciated, as it helps keep items organised and protected. A few smaller pockets for phone, pencil case, purse/wallet would be amazing as well. The shoe/clothes compartment is a standout feature a brilliant addition.

The consideration for recycled materials to keep the bag sustainable and environmentally friendly whilst being susceptible to everyday wear and tear will be challenging.

Overall if this bag came in a range of colors it would be very well suited to the projected age group and extremely useful.

Marcus E @ 2026.04.07 7:46 AM

A multifunctional modular bag that incorporates recycled material is a great idea, this is because it creates the opportunity to use less bags, reduce landfill waste, and extend the lifespan and usages of everyday bags. (Brisbane Council- Benefits of Recycling and Buying Recycled Goods, n.d) (EPA- Recycling Basics and Benefits, 2025)

However a potential issue is the storage of a lunch box, and the strain to the neck and shoulder when the bag is heavy. (Spine Health Foundation- Backpacks and Text-Necks, 2016) To expand on these potential issues lunch boxes tend to be bulky creating strain on the fabric and the zippers used in the bag, thereby reducing the lifespan and the storage potential of the bag.

A potential solution to this is to add a compartment or a clip buckle underneath the bag so that the strain on the bag is reduced, this will also support with the second issues as it moves the weight towards the back of the person reducing the strain on the user's shoulders and neck.

To address the second potential issue, neck and shoulder pain is often caused when a bag is overpacked and there is an increased rotational force and not by the weight of the bag itself. Based on the design concept on the left, making the shoe/equipment compartment fold back in on the main section will move the weight closer to the user reducing the rotational force experienced by the user and thereby reduce the strain to the user’s shoulders and neck.

Still this idea is great and has the potential to decrease waste, widen the usage range and lifespan of everyday bags, as well as create a more biomechanical stable bag.

- Marcus Elder from CQU ENEG12007 Creative Engineering Class

Elsie @ 2026.04.08 7:46 AM

Good day, Lily. This design is good. Thinks about the future. It is a well-designed product that effectively integrates sustainability with multifunctionality, which is great for people with dynamic daily routines. The use of materials and features follows eco-friendly design rules and what people today want, demonstrating strong alignment with sustainable design principles.

To strengthen the main argument, it is essential to consider the product's entire lifecycle. While using recycled textiles supports sustainability, research suggests that durability and longevity can have a greater environmental impact. The Ellen MacArthur Foundation (2017) highlights the importance of extending product use. Therefore, ensuring the product is durable, repairable, and adaptable aligns with the main goal.

School bags and gym bags are used a lot. This can cause problems. The parts of the bag where the straps are attached, the seams, and the zippers are the areas that get damaged the most. Studies on product durability have found that these are the parts that usually break first in things made of fabric. (Gwilt,2024). If we make these parts stronger by adding stitches or special panels that can handle the weight, or parts that can be replaced, the bags will last longer, and we will not throw away as many bags.

Additionally, the multifunctional nature of the bag introduces important economic considerations. According to the American Chiropractic Association (2020), if you carry a load on your back, especially if it is not close to your body, it can hurt your back and muscles. So, it is very important to design the inside of the bag in a way that the compartments maintain centre of mass alignment close to the user's back. We should also add padding and straps that can be adjusted to make the bag more comfortable to carry. School bags and gym bags should be designed to reduce strain on the user's muscles. This can be achieved by designing the product with the user's comfort in mind.

The performance of materials is another important thing to consider. When we use recycled textiles, they can be different from new materials in how strong they are, how well they resist wear, and how they handle moisture. This is something that researchers like (Fletcher& Grose,2012). Conducting material testing or comparative analysis that strengthens the design is justification and ensures reliability in daily use

To ensure the project's future, I recommended to

- Prioritise designed for longevity
- Reinforce high stress components to reduce failure rate
- Validate mechanical performance of recycled material through testing and research

In summary, this idea has the potential to reduce waste and improve user experience, reinforcing the main argument that a lifecycle-focused, durable, and comfortable product benefits both people and the environment. Prioritising material performance and product longevity will maximise the impact

Elsie Munyorwi

CQU ENEG12007(Creative Engineering unit)

Nic Hewitt @ 2026.04.10 7:46 AM

This concept is a good idea that is very useful for a lot of people. By integrating recycled textiles and components from discarded bags, the design supports circular-economy principles and encourages more responsible consumption habits. This approach not only reduces material waste but also demonstrates how everyday items can be re-engineered to minimize environmental impact without compromising usability.

One consideration for improvement relates to long-term durability when recycled fabrics are combined with modular features. Recycled fibers can vary in strength depending on their origin, and repeated reconfiguration of compartments may place additional stress on seams and attachment points (EU Textiles Ecosystem Platform, 2025). Ensuring reinforcement in high-movement areas would help maintain structural integrity over extended use.

Another potential challenge is ventilation. Bags that transition between academic and athletic environments often carry damp clothing or shoes, which can lead to odor build-up and material degradation. Without adequate airflow, even high-quality recycled fabrics may deteriorate faster. Integrating breathable mesh zones or discreet vent panels could help manage moisture while maintaining the clean aesthetic of the design.

Despite these considerations, the concept remains highly compelling. Its focus on sustainability, user adaptability, and thoughtful organization positions it as a meaningful improvement over traditional single-purpose bags. With careful attention to material performance and airflow management, the design has strong potential to enhance daily routines while contributing to more environmentally conscious product design.

- Nic Hewitt, CQU ENEG12007 Creative Engineering

Nathan Foote @ 2026.04.11 7:46 AM

I really like the use of recycled materials and the shoes compartment; it would be great to try reduce landfill waste and I am always in the position where i am needing an extra/different pair of shoes.

Personally, I always require a compartment for food and snacks, I know a bag can only be up to a certain size before becoming a burden, but it would be great to have somewhere to store snacks and food separately from everything else.

I also find every time I purchase a new bag it is when a zip breaks or fails, I think it would be a great idea to include an alternative sealing method or possibly redesigning the zip itself to reduce the chance of zips breaking and needing to repair or replace the bag.

Overall, it's a good design with many useful features and the potential to reduce waste which I think is very important.

-Nathan Foote, CQU ENEG12007 Creative Engineering

RyanB @ 2026.04.12 7:46 AM

Hi Lily,

I've reviewed your concept for the Multifunctional Modular Bag, and I believe you have addressed a genuinely relevant issue for your target audience.

Your emphasis on sustainability through the use of recycled and repurposed materials is a strong foundation, especially given the increasing demand for environmentally friendly products. I also find the idea of a seamless transition between school and gym to be practical and well-aligned with real user needs.

One strength I want to highlight about the project is your clear intention regarding durability, comfort, and organisation. These are critical factors in bag design, and it's great to see that you have identified and prioritised them.

However, regarding the use of recycled and repurposed materials, do you think there could be a trade-off between durability and these materials in terms of product lifecycle and longevity? It would be worth considering factors such as moisture from sweat, weight, and overall wear, especially in the gym context.

Overall, your concept is well thought out and addresses a meaningful problem. With further development of the technical details and practical implementation, it holds strong potential as a functional and sustainable product.

Kind regards,

Ryan (CQU ENEG12007)

Annalise @ 2026.05.01 9:00 AM
This design is very creative, however, something to consider if there is a way to reduce the overall weight of these bags? As a preservice teacher I have seen first hand that students bags get very heavy if they have to carry 5 books, a laptop and potentially a sport uniform for PE classes. So how would this design consider the ergonomics of the straps of the bags to ensure even weight distribution so the user does not get back strain or the straps digging into their arms? Maybe you could look into the compartments for heavier items to be distributed throughout the bag so they don't weigh bag down. This idea seems really great!

Anonymousmax @ 2026.05.01 11:51 AM

This is a really well thought out concept and it comes across as something that would actually be used day-to-day, not just a theoretical idea. The focus on transitioning between school and the gym is clear and relatable, especially for the target age group.

One thing that works really well is the modular aspect of the design. Features like the separate shoe compartment and the ability to switch carry styles make it feel practical and user-focused. It shows you've considered real problems like hygiene, organisation, and convenience.

The sustainability angle is also strong, especially using recycled textiles and repurposed materials. That adds purpose beyond just functionality, and links well to current environmental concerns.

If anything, I think you could push it further by being more specific about how the modular system actually works. For example, how do the compartments attach or detach? Are they interchangeable or fixed? Also, considering weight distribution and comfort when the bag is fully loaded would strengthen the ergonomic side of the design.

Overall, it's a solid concept with a clear user need and strong design direction. With a bit more detail around the mechanics of the modular system and real-world usability, it could be a really strong MDP project.