flood Prone House Design



1 April 2023 by **Gabby3**

66

NSW

Many properties have suffered damage because of the increase in 100-year floods and water levels. Therefore, there is a need for housing that accommodates water flowing through the property. Using stilts is a current solution however, they are not aesthetic and doesn't functionally use the space under the house. My MDP will solve this whilst drawing on biomorphic and modern architectural inspiration. I have selected a home on Narrabeen Lake to apply this design too, as it has faced the effects of floods. I will be grateful for feedback on my design concept and tips on 3D modelling in Revit.

What do you think?

Post Comments

UpRising @ 2023.04.02 10:23 AM Edit or Delete

A fantastic idea Gabby

I love how you are drawing attention to a critical issue whilst showcasing a solution. The combined functional and aesthetical elements of biomorphic and modern architectural sound amazing. Inspirational work, looking forward to seeing it come to life.

Gabby3 @ 2023.04.18 5:55 AM Edit or Delete

Thank you Uprising! I'm looking forward to growing my understanding of the online platforms used for architectural design whilst creating a solution that helps solve a genuine need. Any Tips and Tricks would be really helpful!

Debbie Vadasz @ 2023.04.21 5:55 AM Edit or Delete

Great idea Gabby, especially given the recent floods and devastating damage to properties! It would be good for you to have a think about how water will move through the site and the run off, will you be looking to divert the water away from the house, or how will the foundations/structure of the house be designed to face an onslaught of flood water? Selecting a home on Narrabeen Lake is a great idea, as this kind of design will need to be site specific, so having an understanding of the topography of the site will be really helpful (i.e. is it a sloping site or flat, are there lots of trees, what are the neighbouring sites like etc). A good 3D modelling tool you can also use is SketchUp https://www.sketchup.com/. I'm looking forward to seeing how this progresses!

Gabby3 @ 2023.04.29 6:00 AM Edit or Delete

@Debbie Vadasz Thank you for the comment! I will be looking into how water flows through the property and primarily what supports/structural materials can be used to effectively navigate the water, as I have found that there are many designs that don't do this thoroughly. I have begun using SketchUp for the designs and the software has been beneficial for the development of my ideas! Thank you for the tips!

Henry Butler @ 2023.05.01 1:03 PM Edit or Delete

This is a fantastic piece of engineering.

Chris Bannister @ 2023.05.03 1:03 PM Edit or Delete

Gabby, loving the design, is roof rainwater saved to tanks for later household use. It also looks like you have positioned the house in the best orientation to make the best use of the sun. Well Done!

Debbie Vadasz @ 2023.05.08 1:03 PM Edit or Delete

@Gabby that's great! I'm excited to see how your design evolves and I'm glad to hear that Sketchup has been helpful.

Swimwear that doesn't get wet...'



28 February 2023 by annabelle

630

<u>NSW</u>

It sounds like an oxymoron, water-repellent swimwear! But can you imagine how convenient it would be to own a pair?

In Australia, 200 million beach visits are made averaging 2.3 hours each visit. Yet, individuals are unaware that spending several hours in wet swimwear provides a perfect climate for fungus-growth and infections along with the susceptibility of mould-growth in bags. Throughout my MDP, I aim to create a range of waterproof swimwear to combat the inconvenience and underlying health issues associated with wearing wet swimsuits.

Do you have any advice regarding safe hydrophobic materials/sprays that are suitable for swimwear?

Share:

What do you think?

UpRising @ 2023.03.01 2:03 PM Edit or Delete

Great concept Annabelle. Lots of interesting spin off applications come to mind with this as well.

You have really got me thinking about materials and processes. Excited to see where this goes.

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.07 2:03 PM Edit or Delete

Hi Annabelle,

Wonderful idea for your MDP! Have you heard of the term biomimicry? It means looking to nature for inspiration! You can observe biology and mimic it by using design ideas and materials found in the natural world. There are some terrific YouTube videos with more on biomimicry which is one of the schools of thought behind the circular economy.

A circular economy aims to design out waste and pollution, keep resources in use for as long as possible and at their highest value, and regenerate natural systems.

I wonder which animals have skin that stays dry? If you're keen to learn more about textiles of a more circular nature than polyester and synthetics please let me know and I'll be happy to connect you with people working on some leading innovations in this area.

Warm regards,

Chelsea McLean, Circular Economy Pioneers

annabelle @ 2023.03.14 2:05 PM Edit or Delete

@Uprising thank you so much

annabelle @ 2023.03.14 2:08 PM Edit or Delete

@Circular Economy Pioneers Australia, sounds like a great idea, I'm definitely keen to learn more about alternative textiles that are hydrophobic, connections would be great. Thank you so much

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.15 7:02 AM Edit or Delete

Hi Annabelle,

To help you find out about textiles that are hydrophobic (and hopefully circular too) I've put a call out to Planet Ark's Australian Circular Economy Hub online community. There are many people working on more circular solutions to keep textiles and clothing out of landfill in the community. I'll let you know what they say as soon as possible!

Cheers, Chelsea - Circular Economy Pioneers

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.21 7:02 AM Edit or Delete

Hi Annabelle,

Here's an update with some great ideas from my call out to Planet Ark's Australian Circular Economy Hub online community on the ACE Hub Portal:

Oil-coated fabrics like Drizabone repel water.

Waxed cotton (also known as oilskin) is a naturally based, sustainable alternative for waterproof material https://kingcanvas.com.au/product/soft-finish-cotton-oilskin-material-400gsm-brown/

Research on textiles and biomimicry - could you look to nature and water-repellent lotus leaves, duck feathers, land plants and insects? https://textilevaluechain.in/news-insights/biomimetics-potential-of-hydrophobicity-in-the-field-of-textiles/

What do you think of these ideas for safe hydrophobic materials/sprays that are suitable for swimwear?

Warm regards,

Chelsea - Circular Economy Pioneers

annabelle @ 2023.03.30 7:02 AM Edit or Delete

@Circular Economy Pioneers, thank you so much Chelsea for your valuable input, I will definitely look into those links. Appreciate your time!

Rooster @ 2023.04.06 7:02 AM Edit or Delete

I like the idea but am unsure of it's necessity, the material should prioritise value as a significant increase in price may see your target market continue to purchase standard swimwear at cheaper costs.

Charmian Cronin-Stacey @ 2023.04.07 7:02 AM Edit or Delete

This is an interesting idea, Grace! You've specified beach visits but keep in mind pools with their chlorinated water and how it affects swimwear materials.

Nanotechnology is something some have used to create waterproof clothes and swimwear. A concern I have is the cleaning process of this swimwear. Making the material hydrophobic to prevent it from getting wet would help prevent some things like stains as well. However, wouldn't it require specialised washing instructions? The cleaning process is something that can reduce the longevity of the hydrophobic properties. The Silic T-Shirt only lasts about 80 washes before losing this property.

I look forward to seeing where you go with your design idea.

mu5icchic @ 2023.04.07 7:02 AM Edit or Delete

What a brilliant idea! I'm not sure how far they've come for stretchy applications but there are studies on how fabric weaves can contribute to their hydrophobia that would be worth looking in to, this could negate the risk of pollution in to the environment when relying solely on the use of chemicals to improve the water repellency of fabrics and increase the service life of the garment.

CIRCULAR CENTRE @ 2023.04.17 7:02 AM Edit or Delete

Hi Annabelle - your potentially proposing using chemicals that are highly toxic and also forever chemicals, neither of which we want in the environment and especially not near sensitive organs (skin, body parts). I do have two that could work-ish - one is a bio rubber from FSC certified source, its like a bio natural wet suit material.

The other Ive developed called CircStretch although its not designed to not get wet but using the worlds first C2C bio stretch that breaks down in 5 years and zero toxic plastic microfibres - all others are toxic and take 200 ish years to breakdown into the environment, humans and animals and connected to carcinogens and hormone disruptors.

I did actually do a little test just then on the yoga pants we've made and yes they look like the water rolls off but it also does get wet as its 65% Tencel Modal.

have a look at this

https://www.stscecotextiles.com/circstretch-roica

if you wanted to see them both you can make an appointment for a Consultation

https://www.stscecotextiles.com/book-a-consult

cheers Alison

annabelle @ 2023.04.20 7:02 AM Edit or Delete

@Charmian Cronin-Stacey, thank you I will make sure take the cleaning process into consideration

annabelle @ 2023.04.20 7:02 AM Edit or Delete

@mu5icchic, thank you so much, I will look into how fabric weaves enhance hydrophobia

annabelle @ 2023.04.20 7:02 AM Edit or Delete

@CIRCULAR CENTRE, thank you so much Alison, this looks like a great idea, I will definitely set up a consultation

mariahruby @ 2023.05.01 4:41 AM Edit or Delete

WOW!!! an amazing concept Annabelle!! I can see this benefiting a lot of people!!

annabelle @ 2023.05.02 4:42 AM Edit or Delete

@mariahruby, thank you so much mariah!!!

carolk @ 2023.05.02 4:43 PM Edit or Delete

This is such an awesome concept! I can see so many benefits and applications for this idea. If this becomes a reality, I'll take one in every colour.

annabelle @ 2023.05.03 4:43 PM Edit or Delete

@carolk, thank you so much!!

Therese Ghaly @ 2023.05.03 5:03 PM Edit or Delete

Such a unique concept Annabelle! Truely, no one thinks of the risks associated with wearing wet swimming suits! I think this is a such a unique Idea that will truely benefit us all!

annabelle @ 2023.05.03 2:27 PM Edit or Delete

@Therese Ghaly, thank you so much!

JonB @ 2023.05.08 2:27 PM Edit or Delete

Love the idea...

annabelle @ 2023.05.10 2:28 PM Edit or Delete

@JonB, thank you!!

Drake @ 2023.05.12 9:56 AM Edit or Delete

Can't believe no one thought of this before. Absolutely love it. Great idea.

annabelle @ 2023.05.12 9:56 AM Edit or Delete

@Drake, thank you so much!

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.05.12 6:55 PM Edit or Delete

Hi Annabelle, how are you going finding materials for your prototype? It would be great to know which fabrics you choose! Cheers, Chelsea

UpRising @ 2023.06.06 6:55 PM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

UpRising @ Stone&Chalk - Program X - Tickets are open now.

annabelle @ 2023.07.13 6:55 PM Edit or Delete

Circular Economy Pioneers Australia, Hi Chelsea, thank you for checking in! I was successful in finding a hydrophobic fabric in the United States that not only repels water but is eco-friendly, made from 100% recycled materials, provides UV protection as well including antimicrobial technology:) I have tested it in different water environments and it is looking good!

Edible Cupcake Cases



28 January 2023 by **Eve**

28

<u>NSW</u>

We all love cupcakes but the current wrappers pose a serious issue as they can't be recycled posing a risk for contamination and contributing to the surplus of landfill whilst encouraging an insufficient use of resources. Consumers are demanding more sustainable products, and my MDP aims to fit within the circular economy of eliminating waste whilst encouraging people to get involved in baking!

I have created a biodegradable cupcake wrapper made from simple and gluten-free ingredients including tapioca and potato starch, brown rice flour, vanilla extract and water. These cases can be eaten, instilling fun and sustainability into baking!

What do you think?

Post Comment Comments

IdeaSpies @ 2023.01.29 8:19 AM Edit or Delete

Clever idea Eve! Reminds me of this idea that may give you more.

https://ideaspies.com/posts/edible-coffee-cups-save-the-planet

UpRising @ 2023.01.29 8:19 AM Edit or Delete

Great idea Eve. So clever, and a very clear indication of what you need help with. Great work, looking forward to seeing this idea develop.

Jill007 @ 2023.02.14 4:58 AM Edit or Delete

Excellent idea Eve!

I worked with some people who developed and made edible coffee cups which they have started to make in Australia.

They dd a crowdfunding campaign to get their idea off the ground.

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.05.12 4:48 AM Edit or Delete

Hi Eve, how are you going with developing your edible cupcake wrappers? This fits the circular economy framework beautifully by designing out waste!

Are you familiar with the edible coffee cups made by Good-Edi? https://good-edi.com/ I'm not sure if these are the cups Jill mentioned here... what a cool concept!

Keep us posted on your progress and I would love to share your project with Australia's circular economy community.

Email photos when you're ready: chelsea@circulareconomypioneers.com.au:)

Warm regards, Chelsea McLean - Circular Economy Pioneers

Eve @ 2023.05.13 4:48 AM Edit or Delete

Hi Chelsea,

Thank you for your comment! I'm nearly finished experimenting, just working on extending shelf life and improving flavour. Will definitely send you some photos soon!

Thanks, Eve

UpRising @ 2023.06.06 2:11 AM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

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There is a limit of 50 attendees, with the first invitations going to you, the UpRising students of 2023. If there are any spaces left by the end of this week, we will create a second round of invitations that you can pass onto a classmate from your design class. Please complete this survey if you haven't already to help us know exactly what you want to get from this opportunity. Teachers are most welcome to the event as well.

UpRising @ 2023.08.22 2:52 AM Edit or Delete

Congratulations Eve on your fantastic efforts with your MDP, it has been great to be part of your design journey this year.

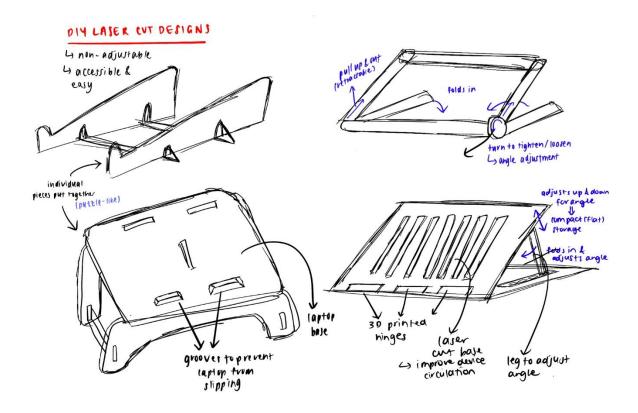
Good luck with the submission of your project and adding any finishing touches this week, I am sure you will do great. We hope that you have learned a lot from being part of this year's UpRising and are excited to take your creativity and design thinking into the next steps in life, (which is exactly what business and industry are looking for). Teachers, thank you for helping your students make the leap across the gap, from classroom to industry.

Business leaders, likewise it has been fantastic to connect with you, thank you for all of the support you have given to these young designers and helping to grow the innovation ecosystem in NSW. Breaking down the silos, together.

If you could complete this quick <u>survey</u> that would be greatly appreciated, teachers and business/community also welcome to fill in and provide valuable feedback.

Thank you

Solely 3D Printed & Laser Cut, Posture Enhancing Laptop Stand



22 March 2023 by celina

15

NSW

Laser cutting and 3D printing files accessible to Australian schools to create laptop stands for all students and improve their posture!

With the rise of BYOD programs in most Australian schools, students can spend 6 hours a day on their devices. Imagine the strain that places on their back and posture!

I will be creating a solely 3D printable and laser cuttable laptop stand design, which can easily be made at their school, to improve their posture when working in the classroom. It will be a breathable design and adjustable in angle and height, ergonomically made to fit each user!

Share:

What do you think?

Post Comment Comments

UpRising @ 2023.03.23 1:47 AM Edit or Delete

Brilliant idea Celina. Love the democratisation of your solution. A great example of Universal Design and a powerful mesage, allowing everyone free access, instantly, anywhere, customisable, clever!

Congratulations

How can we help?

Debbie Vadasz @ 2023.03.24 11:50 AM Edit or Delete

This is a great idea, and I love the accessibility of your design! Are you planning to prototype it?

Roy Buckland @ 2023.04.04 11:42 AM Edit or Delete

Hi Celina, congratulations on taking the step to improve student's physical well-being. The simplicity of the bracket to adjust the screen angle is excellent. I think there is potential to investigate making the device into a protective case to increase interest in the overall marketing of your files.

celina @ 2023.04.17 6:43 PM Edit or Delete

@UpRising Thank You!! I was struggling with finding ways to incorporate an adjustable height element into my design whilst keeping the design fully 3D-printable and laser cuttable. Any suggestions will be greatly appreciated :))

celina @ 2023.04.17 6:44 PM Edit or Delete

@Debbie Vadasz Thank you so much! And yes, I am planning on prototyping it! So far, I've been experimenting with the tools and materials at school:)

celina @ 2023.04.17 6:46 PM Edit or Delete

@Roy Buckland That's a great idea, thank you! I will definitely experiment with this idea and try to incorporate it into my design :)

UpRising @ 2023.06.06 1:58 AM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

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The Living Light - Final Design



10

NSW

Here is my final design! I ended up creating based lights made of mulberry rice paper (100% biodegradable) and the base is made of bamboo plywood (highly sustainable). To change the light colours and add an element of customisation, I created coloured acrylic disks to place over the light source. In addition, at the end of its life cycle the design can be planted to biodegrade and the light and base itself can be built for disassembly.

Post Comments

UpRising @ 2023.08.24 11:57 AM Edit or Delete

Looks amazing Madi

Congratulations.

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.11.13 12:37 PM Edit or Delete

Your final design is really fantastic - well done Madi! I remember commenting on your initial post here earlier this year and was looking forward to seeing what you would create. I am super impressed

Ergoboard - Ergonomic Mechanical Keyboard



23 April 2023 by Hamish



4.53% of working Australians reported serious claims to safe work Australia that could be related to musculoskeletal injuries due to typing for long periods of time in non-ergonomic positions.

I aim to answer this need by creating a keyboard that allows you to type in the natural resting position of your hands, wrists, and arms.

To achieve this goal I will design a split keyboard with two halves that can be rotated along the y axis allowing for the users hands to be in a neutral position.

Here is a video of my progress on the project so far www.youtube.com/watch?v=kAHVqaqfGs8

What do you think?

Post Comment Comments

UpRising @ 2023.04.23 4:19 PM Edit or Delete

Wow, this sounds like an amazing challenge Hamish. How can we help?

Hamish @ 2023.04.28 4:19 PM Edit or Delete

It would be great if people could fill out a short google forms survey relating to my project

Here is the link

https://forms.gle/EWusvYUEVbRgk4tm9

Louellen @ 2023.04.28 4:19 PM Edit or Delete

Wow, Hamish. What an extraordinary design! Is it possible for the two "Ergo-Board" pieces to separate or be adjusted to allow adjustable comfortability for its users? (For example, moving the two pieces in opposing directions along the X axis as well as the Y axis.)

Hamish @ 2023.04.28 4:19 PM Edit or Delete

Thanks for your comment, yes the two halves will be completely independent of each other and just connected by one cable. Hopefully this means the keyboard halves can be put in the most ergonomic position for users of all shapes and sizes. It should also help solve the problem regular keyboards have of needing to keep your hands cramped in the middle of your desk

Corey P @ 2023.05.01 4:19 PM Edit or Delete

Top Notch idea HAMISH can't wait to try it out myself #bestideaever

Corey P @ 2023.05.01 4:19 PM Edit or Delete

Actually i take it back its not top notch its legendary

Hamish @ 2023.05.01 4:19 PM Edit or Delete

Thanks for the support Corey

Fran G. @ 2023.05.05 1:44 PM Edit or Delete

looks great, user friendly on hands and wrists.

UpRising @ 2023.06.06 1:44 PM Edit or Delete

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Hamish @ 2023.06.06 1:44 PM Edit or Delete

For anyone interested here is a video of my progress on my major work so far www.youtube.com/watch?v=kAHVqaqfGs8

IdeaSpies @ 2023.06.06 1:44 PM Edit or Delete

Repetitive strain injuries are a major problem. Well done Hamish on your excellent video explaining your research and development of a working prototype.

UpRising @ 2023.08.22 1:51 AM Edit or Delete

Congratulations Hamish on your fantastic efforts, it has been great to be part of your MDP journey this year.

Good luck with any finishing touches with your MDPs. We hope that you have learned a lot from being part of this year's UpRising and are excited to take your creativity and design thinking into the next steps in life, (which is exactly what business and industry are looking for.) Teachers, thank you for helping your students make the leap across the gap, from classroom to industry. Business leaders, likewise it has been fantastic to connect with you, thank you for all of the support you have given to these young designers and helping to grow the innovation ecosystem in NSW. Breaking down the silos, together.

If you could complete this quick <u>survey</u> that would be greatly appreciated, teachers and business/community also welcome to fill in and provide valuable feedback.

Thank you.

AlertStyle Medical Jewellery



4 April 2023 by Genevieve

127

<u>NSW</u>

Half of young Australians have a life-threatening condition (e.g., anaphylaxis and epilepsy). Therefore, there is a need for a wearable system/product that effectively communicates critical information to bystanders in an emergency. Medical jewellery currently on the market functionally meets this need; however, it's often chunky and unattractive. In response, I'm developing medical jewellery that's modern and minimalistic yet still functional. To provide vital medical information, I am endeavouring to embed QR technology in the design. I'd value feedback on my design concept, connections with jewellery designers, and/or tips on producing handmade jewellery and using CAD/CAM technologies.

Share:

What do you think?

Comments

UpRising @ 2023.04.04 3:09 AM Edit or Delete

Great concept Genevieve. Visual prototypes look amazing. Are you adding in the QR code as a mould or laser cutting it in?

Genevieve @ 2023.04.13 7:52 AM Edit or Delete

@UpRising I'm actually not too sure. I have conducted several experiments to see if 3D printing the QR code would work. In each experiment, the QR code was either messy because of the filament or not there at all, so I'm unsure of how I would create a mould for the QR code that way. I have also considered laser cutting the QR code in, but I will have to reach out to someone externally with a laser cutter that can do that because the laser cutters at school are unable to

cut into metal or resin. If you have any suggestions or resources please let me know and thank you for the kind feedback:)

Chris Bannister @ 2023.05.03 7:27 AM Edit or Delete

Genevieve, you have designed and created an awesome piece of jewellry with a positive purpose for those who need important medical information on hand. If I was vision impaired could I read the ring or pendant? If the material used were to tarnish over time will it still be usable? I would like to put in an order for a pendant for my mother-in-law.

Genevieve @ 2023.05.03 9:45 AM Edit or Delete

@Chris Bannister Thank you so much! Those are really great questions. I hadn't considered the vision impairment component, but perhaps by enlarging the words I could increase the readability for people to see and read the jewellery better. And I'm planning on using either 10k gold or sterling silver in my final designs, meaning the jewellery will be very durable, making it hard to tarnish. I'll make sure to get on the order:)

UpRising @ 2023.06.06 1:57 AM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

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UpRising @ 2023.08.22 1:55 AM Edit or Delete

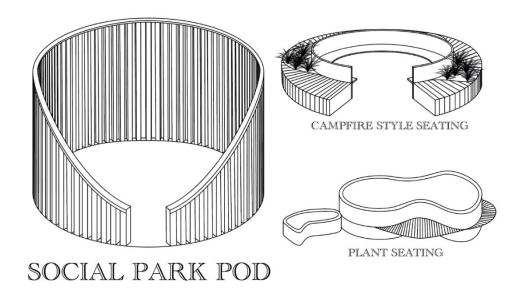
Congratulations Genevie on your fantastic efforts, it has been great to be part of your MDP journey this year.

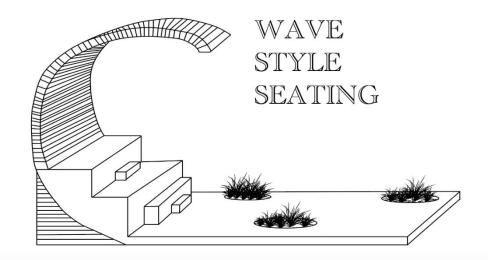
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If you could complete this quick <u>survey</u> that would be greatly appreciated, teachers and business/community also welcome to fill in and provide valuable feedback.

Thank you.

Modern seating for community spaces





19 April 2023 by **Phoebe1805**

222

<u>NSW</u>

Most recreational spaces or picnic areas offer limited seating options, let alone shelters/spaces that offer some privacy or have aesthetic appeal. They are often open, boxy and uninviting. To meet this need, I endeavour to develop a community space with a variety of seating/shelter options including 'Social Park Pods'; modern, inviting, semi-private spaces. This concept will be applied to Apex Park, which is currently a large, grassed area with no shelters, seating or aesthetic appeal. I'm looking for any feedback, supporters who work in landscape architecture and/or suggestions for a software to develop models and renders of my vision.

What do you think?

Post Comment

Comments

Debbie Vadasz @ 2023.04.21 8:54 AM Edit or Delete

Hi Phoebe. This is a great idea, and I'm curious to see how it develops. Especially the shelters and how your pods will protect users from the elements - rain, wind, sun etc. Regarding software, have you taken a look at Sketchup? https://www.sketchup.com/. There's a free version and also some trial ones. It's a good starting point for 3D modelling.

UpRising @ 2023.04.22 6:06 AM Edit or Delete

Great concept Phoebe, love the idea of socially motivated designed spaces. The Form of your design can be a very powerful way to invite people in and create an ice breaker discussion point.

Looking to seeing your idea grow. Remember that you can update your image in your post to incorporate a montage of your ideas as they change (Combine 4 images together into one picture), which allows viewers to see your project evolve.

PeterW @ 2023.05.02 7:10 AM Edit or Delete

This is excellent. Love the concept and wish you the absolute best, Phoebe

Chris Bannister @ 2023.05.03 7:21 AM Edit or Delete

Phobe, wow, I look forward to seeing these designs in my local park. Have you incorporated ideas to avoid graffiti on the project? and will they take the punishment from skateboard or scooter riders? I like the aspect that multiple people can use your designs at the same time.

UpRising @ 2023.06.06 1:57 AM Edit or Delete

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Click here to get your ticket. https://events.humanitix.com/uprising-stone-and-chalk

Our big event for this year, UpRising@Stone&Chalk, July 14th Friday 10am to 2pm, and you get first dibs. This will be in the second week of the school holidays. It doesn't mess up your school time and makes it as easy as possible for you to get there. In a cool building, in an amazing place, in the heart of innovation in NSW.

There is a limit of 50 attendees, with the first invitations going to you, the UpRising students of 2023. If there are any spaces left by the end of this week, we will create a second round of invitations that you can pass onto a classmate from your design class. Please complete this survey if you haven't already to help us know exactly what you want to get from this opportunity. Teachers are most welcome to the event as well.

UpRising @ 2023.08.22 1:53 AM Edit or Delete

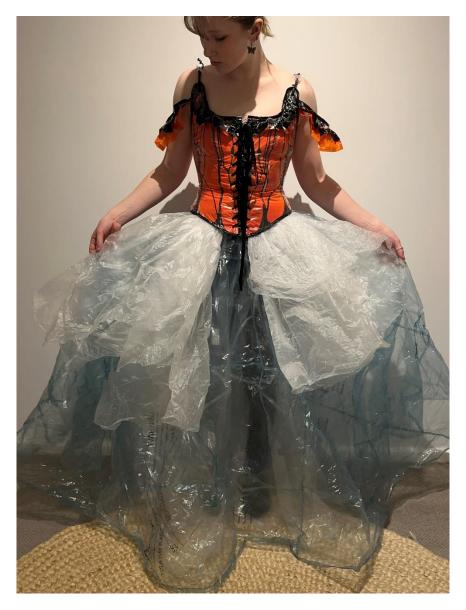
Congratulations Phoebe on your fantastic efforts, it has been great to be part of your MDP journey this year.

Good luck with putting any finishing touches on your MDPs. We hope that you have learned a lot from being part of this year's UpRising and are excited to take your creativity and design thinking into the next steps in life, (which is exactly what business and industry are looking for.) Teachers, thank you for helping your students make the leap across the gap, from classroom to industry. Business leaders, likewise it has been fantastic to connect with you, thank you for all of the support you have given to these young designers and helping to grow the innovation ecosystem in NSW. Breaking down the silos, together.

If you could complete this quick <u>survey</u> that would be greatly appreciated, teachers and business/community also welcome to fill in and provide valuable feedback.

Thank you.

reducing textile waste in the formalwear indsutry and on the runway





The formalwear industry, and high fashion on the runway, produce high amounts of textile waste each year, through clothing worn once and never again. Through the substitution of typical textiles with soft plastic, I aim to not only reduce the waste of textiles within the high fashion industry, but also the increasingly relevant issue of soft plastic waste.

Share:

What do you think?

Post Comments

UpRising @ 2023.02.21 6:03 AM Edit or Delete

Fantastic concept Alanna. What can we do to help?

PS love the use of gif, that's got to be a first.

Also recommend you check out the Metaverse Fashion council. Great inspiration, crazy ideas.

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.14 6:03 AM Edit or Delete

Hi Alanna,

Wow what an eye-catching gif and project idea. I'm sure it's going to be amazing!

Textiles/fashion is a key focus area for the circular economy which aims to design out waste and pollution, keep resources in use at their highest value and for as long as possible, and regenerate natural systems. Keeping soft plastics out of landfill, especially right now, is a terrific idea. I'm happy to help you connect with people working in circular textiles/clothing and soft plastics if you like. What questions do you have and what would you like to learn more about?

Warm regards,

Chelsea McLean, Circular Economy Pioneers

UpRising @ 2023.08.22 6:03 AM Edit or Delete

Congratulations Alanna on your fantastic efforts with your MDP, it has been great to be part of your design journey this year. We would love to see an image of your final design if you get a chance to drop one in as an update of your post.

Good luck with the submission of your project and adding any finishing touches this week, I am sure you will do great.

We hope that you have learned a lot from being part of this year's UpRising and are excited to take your creativity and design thinking into the next steps in life, (which is exactly what business

and industry are looking for.) Teachers, thank you for helping your students make the leap across the gap, from classroom to industry.

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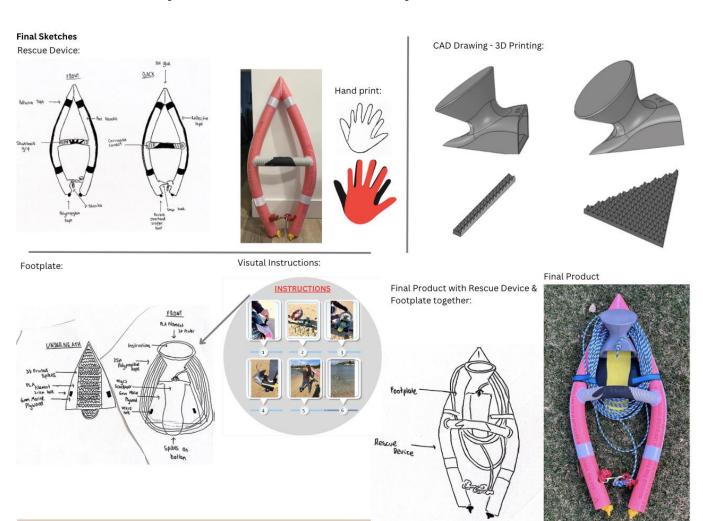
Alanna @ 2023.08.25 6:03 AM Edit or Delete

I've updated the image to reflect the final outcome of my mdp! Enjoy :)

UpRising @ 2023.09.04 2:54 AM Edit or Delete

Congratulations Alana, it looks amazing!

Dry Rescue - Water Safety Device





Every year, an estimated 236,000 people drown! To prevent drownings and address a gap in the market, I am developing a water rescue device for emergency services to use without entering the water. My primary research has revealed that emergency services are often present during such incidents but lack the proper equipment to be of assistance, resulting in numerous drownings. I am open to any suggestions that could help improve my product design and assistance on how to get the product on the market after HSC. Any support or input would be greatly appreciated.

Share:

What do you think?

Comments

UpRising @ 2023.02.27 1:34 PM Edit or Delete

Wow, a very interesting project Ella. Can you provide a little more detail on how the device works? I'm thinking it could be like an underwater drone, but I don't want to assume anything. If you could share some more details, industry might be able to better understand how they can help.

Looking forward to seeing your project develop.

IdeaSpies @ 2023.02.27 1:34 PM Edit or Delete

Great Idea Ella! This idea may give you more https://ideaspies.com/posts/a-remote-controlled-lifesaver

Ella @ 2023.02.28 8:02 AM Edit or Delete

@Uprising that is a perspective I hadn't thought of I was thinking of doing an out-of-water device that was going to propel a rescue tube however, I was facing many issues with that design. I will do some research on underwater rescue devices as that may help solve some of the problems I am facing such as having enough power to combat wind but not hurting the victim if it directly hits them.

Ella @ 2023.02.28 8:02 AM Edit or Delete

@IdeaSpires thank you so much for sending that link through, it is definitely helpful

Debbie Vadasz @ 2023.03.03 8:02 AM Edit or Delete

This is a fantastic idea Ella! I look forward to seeing how it develops.

Brodie Williams @ 2023.04.06 5:01 AM Edit or Delete

This is a wonderful idea, Ella! The project design has great scope, addressing a significant issue specifically relevant to the majority of Australia. As a Surf Lifesaver, this creative project design has certainly identified a gap in the market, as currently there is no effective solution for the problem.

Can you provide some further detail into how the rescue tube can initially detect a drowning individual, and thus how it can collect the individual once in the water? Furthermore, have you

had any contact with stakeholders – most notably Lifeguards to grant a great understanding of the practicality of the project design?

I look forward to seeing your design further develop.

Ella @ 2023.04.09 5:01 AM Edit or Delete

@Brodie Williams Thank you for reaching out to me and for the positive feedback, the product will not be detecting drownings as it would initially be lifeguards/lifesavers/bystanders who will then alert emergency services. This design aims to assist in the rescuing of the victim. Once the device is in the water, it will go directly to the patient (currently thinking underwater drone concept) which will have an inflatable attached to it. This will allow the patient to grab onto the inflatable. Yes, I have been in contact with my local lifeguards who have confirmed the need for this type of rescue equipment and have been a great help throughout my design process.

GeordieL @ 2023.04.12 5:01 AM Edit or Delete

Hi Ella,

Great idea! I was just wondering whether the propelled drone could be released manually and remotely operated to propel to to the distressed party and even submerse on command. I'd just be concerned with the focus on the gun launch and the need for the 'spear gun' as the drone itself could be quite heavy (potentially limiting the launch anyway) meaning it may not be optimal to lug a drone-loaded spear gun around with our emergency workers. But the idea of the propelled life-saving drone on its own that could release and maybe even activate a life-saving inflatable is certainly a wonderful project and I hope this brainstorm helps.

Thanks for sharing your lovely idea.

Ella @ 2023.04.20 5:16 AM Edit or Delete

@GeordieL Thank you for reaching out to me and for the positive feedback!! Since you commented I have conducted some more brainstorming on the 'propelled life-saving drone' and 'live-saving inflatable' and I have concluded that due to my resources, skill level and time limitations, it would be challenging for me to complete. The gun launch was also a concern for me, hence I have significantly simplified my idea to improve the inflatable (as can be seen in the image above) to be able to manually launch instead of remotely, as you suggested, through the inflatable product. Thank you again for this helpful feedback in continuing to develop my idea!!

Chrissym @ 2023.05.06 11:52 AM Edit or Delete

Products that reduce risk to reducers are a fabulous idea. This product looks to remove it altogether. Nice work Ella.

Rags @ 2023.05.08 6:33 AM Edit or Delete

Great idea Ella!

Lifeguard_2035 @ 2023.05.10 4:52 AM Edit or Delete

Great work Ella, As a lifeguard we see it all too often that there were people onsite when the incident occurred but unable to assist. And we get the call only too late after it has been to ambulance then police then us.

Ella @ 2023.05.10 7:49 AM Edit or Delete

@ Chrissym, @Rags and @Lifeguard_2035 thank you so much for the positive feedback on my design!

Ella @ 2023.05.10 8:01 AM Edit or Delete

@Lifeguard_2035, yes this is the exact issue I am addressing that you are currently facing in your work. My goal is to bring this product to the market and make it available for emergency

services to use, with the hope of eliminating this issue in the future. I am currently just needing help and guidance on how to put this on the market for emergency services to have access to.

Matt @ 2023.05.10 5:59 PM Edit or Delete

What a brilliant idea.

outstanding design, well done!

Krd @ 2023.05.10 6:01 PM Edit or Delete

Love it. Fantastic idea.

John Walton @ 2023.05.12 9:12 AM Edit or Delete

Excellent idea. Having the ability to really use the velocity of throwing a stick to achieve maximum range is a great idea. Obviously the float will support the person and the rope attached to land will save rescuers lives as well.

msambrailo9@hotmail.com @ 2023.05.12 9:19 AM Edit or Delete

Wow, that is amazing Ella. I am going to show some of my colleagues at work what you have done as I would value their opinion (the all water people as you could imagine)! thanks for sharing.

Matt

msambrailo9@hotmail.com @ 2023.05.12 9:24 AM Edit or Delete

Amazing Ella. I am going to share this with my work colleagues as we are involved in training for all types of water activities.

cheers

Matt

Sam Saliba @ 2023.05.12 9:31 AM Edit or Delete

Their are so many applications that your innovation is suitable for Ella, great work!!!

I look forward to seeing one of your units at every beach in Australia.

Ella @ 2023.05.14 10:18 AM Edit or Delete

@Matt, @krd and @John Walton Thank you so much for the positive feedback on my design!

Ella @ 2023.05.14 10:23 AM Edit or Delete

Thank you so much for commenting, @msambrailo9@hotmail.com. Your opinion is highly valuable to me, especially given your position in the police force and the fact that emergency services are my primary target market for this product. I would love to hear what your colleagues think as well, so thank you for sharing it with them!

Regarding getting this product out to police forces for use in both training and real-life scenarios, I would greatly appreciate any suggestions you might have. I want to ensure that this product meets the needs of those in the field and can help make their jobs easier and safer. Thank you again for your input, it is truly appreciated!

Ella @ 2023.05.14 10:26 AM Edit or Delete

Thank you, @Sam Saliba, for the positive feedback on my innovative design. I share your enthusiasm for the potential impact this product can have in reducing the number of drowning casualties in Australia. I hope to see this product available on every beach in the country so that more people can enjoy the water safely. Thank you again for your comment, it means a lot!

UpRising @ 2023.06.01 2:37 AM Edit or Delete

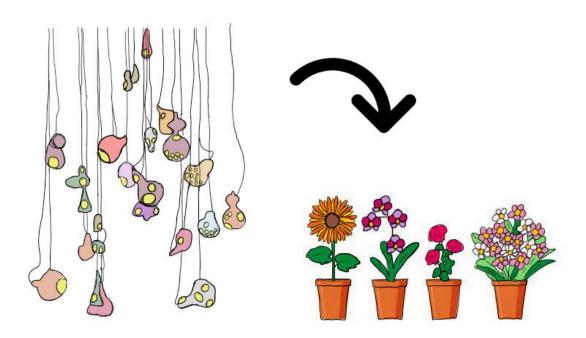
Great work on the updated image. Looking like it is coming along nicely Ella.

UpRising @ 2023.06.06 1:59 AM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

UpRising @ Stone&Chalk - Program X - Tickets are open now.

The Living Light



21 February 2023 by madi

17

NSW

The Living Light is a light installation created with a sustainable material in amorphous and inorganic shapes, whereby at the end of its life cycle it can be planted to biodegrade and grow new agriculture. Across generations there has been an increased awareness and shift in attitude towards the environment. This has provided the need for sustainable production methods, eco-

friendly materials and proper disposal methods when a product becomes obsolete. Furthermore, light is important to our daily lives, for purpose of concentration, comfort and decoration.

Any advice would be appreciated and any willing collaborators here is your opportunity.

Thank you!

Share:

Comments

UpRising @ 2023.02.21 4:03 AM Edit or Delete

A great idea and a great post, love the direct invitation to collaborate. Check out the Shop tab in the UpRising site. Great material options and companies doing amazing things.

A lot of potential, looking forward to seeing this project evolve.

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.07 6:26 AM Edit or Delete

Hi Madi, what an amazing idea!

What materials do you have in mind? I'd love to learn more about truly biodegradable lighting and how long the material/s would take to safely return to the earth with no toxic residues. Happy to help you with this!

Also check out the world's first 'light as a service' program here: https://acehub.org.au/knowledge-hub/case-studies/signify

Warm regards, Chelsea McLean - Circular Economy Pioneers

madi @ 2023.03.07 6:26 AM Edit or Delete

Hi Chelsea,

I have been experimenting with many different ready made materials and even making my own paper. I tried using ready made seed paper and dampening it and then wrapped it around an amorphous shaped mould, but found it to be too thick to let light through and very difficult to remove without breaking or ripping the material. I then made my own normal paper and seed paper- I did this by blending water and scrap paper (with seeds) and pressing all the water out through a silk screen and letting it dry. These papers were aesthetically great, but functionally again would not let light through and I don't think it would biodegrade. My last experiment was with fibre paper that I had purchased. I dampened this and similarly wrapped it around a mould-this proved to be the most visually appealing with light (as the fibres within the paper looked very nice) and the material was thin enough to allow for projection, however it isn't obviously biodegradable. I was given the possible idea of mushroom mycellium, but I am not too sure what I should be looking at/for... please if you have any possible ideas, they would be much appreciated!!

P.S. For my light source, I have been working with some simple coding using a Playground Express. I have also created some 3D printed casings and laser cut holders for the Playground Express itself to sit in, and then for that to be inside the lights exterior (lantern style).

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.08 6:26 AM Edit or Delete

Hi Madi.

Well done on your research for the lighting exteriors! What was the fibre paper made from? Let's help you find some paper or material that composts safely. Check out Liam Gibson's https://circulardesignco.com/circularmateriallibrary/ and also https://www.fungisolutions.com.au/

Both are supports of this UpRising platform and I'm sure they would love to help you investigate this!

It would be interesting to look into the life cycle of the Circuit Playground and maybe even ask the manufacturers some questions. In Australia, the amount of e-waste created per person in a year is estimated at 20.4kg compared to approximately 7.3kg globally. Maybe the manufacturers can join the coalition of the willing to help drive forward e-product stewardship in Australia. You could see what they are doing about this and perhaps even suggest an end of life solution for the Circular Playground products!

Warm regards,

Chelsea McLean, Circular Economy Pioneers

madi @ 2023.03.14 6:45 AM Edit or Delete

Hi Chelsea,

Thank you for the reply. The fibre paper came from the website 'Papermarc' but I am not actually too sure as to what it is made from. I had a look at the circular material library and just contacted them inquiring about the possibility of getting a sample of 'rootfull'. I was also considering still using a playground express as my light source, whereby it is placed inside a case made of 'recycled acrylic' and the light itself is just built for disassembly. What are your thoughts on this idea?

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.15 8:06 AM Edit or Delete

Hey Madi,

You're making some great progress, well done! Could you shoot Papermac an email asking them for the ingredients in their fibre paper to see if it could be safely returned to the earth at the end of its useful life? This would mean leaving no toxic residues of course! Liam Gibson from the Circular Materials Library is a great source of knowledge in this area. :)

Yes, I can see why you're planning to use the playground express as a light source and it's a great idea to use recycled acrylic casing and design for disassembly. Would you gain extra credit for writing to the Circuit Playground manufacturers to see what they're doing about e-product stewardship and responsible supply so their products don't end up in huge, mounting piles of landfill?

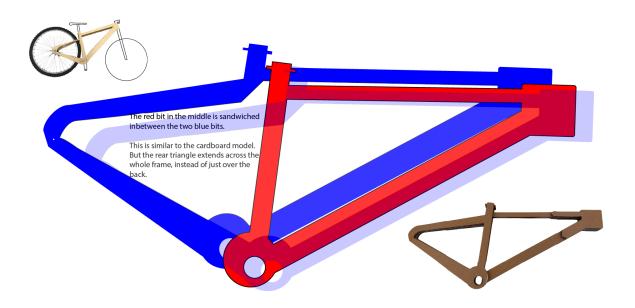
Susan @ 2023.06.01 8:06 AM Edit or Delete

Fabulous idea! I can see this as a regular stall at handmade markets and beyond.

Biophilic design is gaining mass momentum and this type of concept could be scaled.

Keep pursuing.

Children's Bike Builder Kit



14 February 2023 by grace_m

14



I propose to design and build a 'make your own bike kit' for a 11-16 year old. I'm going to make the frame out of plywood, cutting it with a CNC router, and then make multiple layers to assemble the frame.

I am trying to understand how different forces affect bike frames. I've been using Fusion 360 to do load simulations, but it's started giving error messages when it solves the study. Has anyone had this issue?

Any other advice would be much appreciated.

Any manufacturers wanting to collaborate, here is your chance.

Thank you

Grace

What do you think?

Post Comment Comments

Jill007 @ 2023.02.14 2:18 PM Edit or Delete

Grace - I like your idea that young people could learn to put together their own bike. Well done.

Sabra Brock @ 2023.02.14 2:18 PM Edit or Delete

Great to encourage innovation with a purpose early

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.09 2:18 PM Edit or Delete

Hi Grace.

Absolutely love your idea! What a great way to involve young people in building things and gaining a better understanding of how things work! And a great way for parents, grandparents and carers to spend quality time with children. What I love most about your project is that designing for assembly also means designing for disassembly.

This is a core sustainable design principle. If you can separate materials then you can recover them and keep them 'in the loop'. Have you heard of the circular economy? It aims to design out waste and pollution, keep resources in use at their highest value and for as long as possible, and regenerate natural systems.

Could your plywood be safely returned to the earth at the end of its useful life with no toxic residues, do you know? What are the other material components in the kit - i.e. metal, plastic, etc. and what are the end of life options for these materials I wonder? Happy to help you with this and expand on the innovation behind your product.

Kindest regards,

Chelsea McLean, Circular Economy Pioneers

grace_m @ 2023.04.03 7:25 AM Edit or Delete

Hi Chelsea,

Apologizes for the delayed response.

I think the idea of creating it for disassembly is a great idea! I will look into how I can make it happen. Thanks!

You've also got me thinking about the materials I am using. I wonder if there is a plywood that doesn't use toxic glues? I'll have a look...

Thank you very much for all your ideas, they are great points that I will look into.

Kind regards,

Grace

Juliette Lewis12345 @ 2023.04.06 5:33 AM Edit or Delete

This is a wonderful idea Grace! This is a great way for teenagers to get their minds and hands working! Plywood is also a very practical and easily accessible material.

Have you considered what materials/tools would be needed for these kids to connect the pieces together? Will the kit come with specific tools? This article might aid in some ideas: https://www.pinkbike.com/news/bike-check-the-full-suspension-bike-made-from-plywood.html (it's about how someone made a bike out of plywood - and the materials they used to create it). What weight should these materials withstand?

I look forward to seeing how this design develops.

UpRising @ 2023.06.06 2:07 AM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

UpRising @ Stone&Chalk - Program X - Tickets are open now.

Click here to get your ticket. https://events.humanitix.com/uprising-stone-and-chalk

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grace_m @ 2023.06.10 6:21 AM Edit or Delete

Hi Juliette,

Thank you for your feedback.

The link was very useful, and gave me some good ideas.

Thanks,

Grace

UpRising @ 2023.08.22 2:33 AM Edit or Delete

Congratulations Grace on your fantastic efforts with your MDP, it has been great to be part of your design journey this year.

Traffic management plan



22 February 2023 by Jordy

19

NSW

The traffic situation outside my school has become increasingly dangerous. According to the AAMI Crash Index, over a quarter of all road incidents in Australia occur around school pick-up. An organised traffic safety system is more than needed to create a safer, stress-free experience for students and teachers. At this point in time I think the best design solution would be a pedestrian overpass over the main road that does not disrupt the traffic flow as well as a pedestrian crossing. I would love to create a unique design for the pedestrian overpass incorporating community aspects.

What do you think?

Post Comment Comments

UpRising @ 2023.03.03 11:39 AM Edit or Delete

Great concept Jordy.

This idea brings in so many great issues to explore and solve. Brilliant.

Was sent this to share across the engineering/landscape / built environment projects in here. Hope this helps. Also, let us know some key next steps / challenges you need some help with.

Can I suggest a look at the regenerative design and development space

This focuses on first building capacity within the designer on right thinking action and knowledge in line with the natural evolutionary system of life, I think that if there was anything you could provide these students it would be to give them a better opportunity of how to see the world and their place in it

The best course Ive seen/done is https://www.regenerat.es/trp/ and although Regenesis works based on the built environment the system can be used for anything. They have a short few clips on their site that explain it better https://regenesisgroup.com/

Also look into Carol Sanfords work in regenerative business https://www.youtube.com/watch?v=zLXX6VqWYTg&t=907s

Hayden Richardson @ 2023.04.06 4:59 PM Edit or Delete

This is a really fascinating idea Jordy.

We have an overpass that links two campuses of a particular school in my region. The overpass actually travels over the national highway and has completely eliminated pedestrian disruption to the traffic flow.

I personally think this is a great concept that should be explored further. I think there is potential to create a general blueprint that many local councils could utilise in the implementation of such a sheme.

Mycelium Coffee Table



4 February 2023 by eva.kolokotsas

353

<u>NSW</u>

An Australian household disposes of approximately 24kg of wooden furniture annually, including 3.5 million coffee tables.

Additionally, the issue of "Fast Furniture" contributes to environmental issues such as environmental degradation and resource depletion, as that furniture has a limited life-cycle and is poorly made.

My aim is to design and produce an organic and sustainable alternative to wooden furniture, to combat this issue. This MDP will include a coffee table constructed from mycelium.

I need assistance in understanding how to grow a mycelium brick, as well as re-designing my table to include "interlocking legs" appropriate to the material.

Share

What do you think?

Comments

UpRising @ 2023.02.04 2:16 PM Edit or Delete

An amazing idea Eva !!! Mycelium is incredible.

Liam Gibson Founder of <u>CIRCULAR DESIGN CO</u>. Liam, a professional industrial designer, has created an incredible library of <u>Circle Materials</u> and has graciously allowed me to embed this into the UpRising site. see the new '<u>Shop</u>' page. This makes it very easy for high school design students to connect directly to the businesses who are doing the heavy lifting of harvesting from material waste streams and turning materials to new raw usables. Connecting you with these companies helps them grow and do more good for everyone.

Also scroll down to the footer in UpRisings home page, there you will find your answers - ask for Emily Medbury, Executive Creative Director of the awesome team at Fungi Solutions, I am sure would love to help out.

Can't wait to see this great project grow.

eva.kolokotsas @ 2023.02.06 7:00 PM Edit or Delete

Hi Uprising!

Thank you so much for taking the time to reply, I will definitely reach out to Emily and visit Circle Materials for help! Thank you for the connections and advice :)

Liam Gibson @ 2023.02.14 7:00 PM Edit or Delete

Great idea Eva,

One of the fantastic things about Mycelium structures is that it can be grown locally with low-impact manufacturing techniques.

Mycelium also requires an organic substrate material, to add to the story, I suggest looking to your local area for any waste materials that are available, examples could be agricultural waste, waste from local beer production, local weeds etc... what local touch can you add to the blend of the mycelium structure?

IdeaSpies @ 2023.02.14 7:00 PM Edit or Delete

Great idea Eva and suggestion Liam.

These are ideas, explained simply, when you search mycelium on IdeaSpies. https://ideaspies.com/search?q=mycelium

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.05.12 6:00 AM Edit or Delete

Hi Eva, it would be great to hear how you're going with developing your awesome idea and finding a locally-sourced organic substrate material to add to the mycelium, as Liam Gibson suggested. Let us know and we are here to help with more ideas and to share your awesome work with Australia's circular economy community.

Cheers, Chelsea McLean - Circular Economy Pioneers

eva.kolokotsas @ 2023.05.20 6:04 AM Edit or Delete

Hey Chelsea,

I'm making some progress in developing my idea, I'm in the middle of my first attempt to make mycelium brick right now! I have inoculated rice grain with mycelium and mixed that with locally-sourced hemp hurd as my substrate material, and so far it is looking good! My next step is to redesign my coffee table in a way that I will be able to grow in a mould.

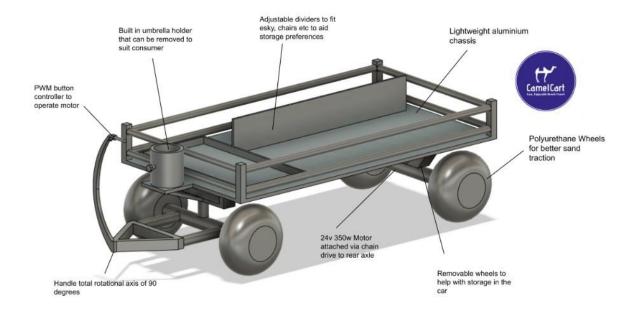
Circular Economy Pioneers Australia - Chelsea McLean @ 2023.05.25 8:45 AM Edit or Delete

Hi Eva, that is amazing, thanks for the update! I am cheering you on and would love to hear how you go making your mycelium brick and re-designing your coffee table so it can grow in a mould. There's a whole host of circular economy enthusiasts out there who could help you so please reach out if you need support with this. Warmest, Chelsea

UpRising @ 2023.08.22 2:51 AM Edit or Delete

Congratulations Eva on your fantastic efforts with your MDP, it has been great to be part of your design journey this year.

Motorised Beach Buggy



3 February 2023 by SamS

14



The journey from the car to the beach can be difficult to carry everything and can be one of the most unpleasant aspects of the trip.

The motorised feature of the CamelCart allows users to transport belongings effortlessly to and from the car.

This product separates itself from competitors with a range of customisation options (canopy, racks, dividers, etc), and the removable wheel assembly makes it simple to store in the car boot.

Since my knowledge of fabrication, electronics, and motors is somewhat limited, I'm searching for supporters with expertise in those backgrounds.

What do you think?

Comments

IdeaSpies @ 2023.02.03 3:56 PM Edit or Delete

Great idea SamS. Looks like something my personal trainer should have, transporting all his gear to clients in parks....

UpRising @ 2023.02.04 3:56 PM Edit or Delete

Love this idea SamS

Such a clever idea. This has real commercial value. Such a pain for families trying to get lots of beach gear to where it needs to be. Your post is perfect, clear concise and straight to the point. If

you are anywhere near UNSW, drop their engineering dept an email, https://www.unsw.edu.au/engineering

Looking forward to seeing this project come to life.

Kilian Frunz @ 2023.03.14 8:01 AM Edit or Delete

This looks like a really solid value proposition and solves a well-defined, relatable problem - the makings of a great design! Well done!

I'm fortunate enough to work in the camping and leisure industry as a product designer & mechanical engineer and have actually worked on beach carts previously - I'd be more than happy to answer any questions you have about the manufacturing side, as well as some guidance on electro-mechanical systems!

Can't wait to see where this leads!

SamS @ 2023.03.15 8:01 AM Edit or Delete

Kilian Frunz

Thank you so much for replying. I'd love to have a chat with you about the manufacturing process and the electronics system. Let me know of ways to get in contact.

Thanks

Sam

Kilian_Frunz @ 2023.03.17 8:01 AM Edit or Delete

SamS, happy to help! Likely LinkedIn is the easiest way to get in touch - feel to reach out, my name on the platform is Kilian Frunz!

Best of luck!

Kilian

Awoodward2 @ 2023.04.03 8:01 AM Edit or Delete

This would be super handy. A chain drive may present problems when sand is introduced, have you considered mounting the motors in place of the rear axle, like a direct drive setup? The wheels could still be clipped on and off the motor hubs for stowage. Another option would be a roller setup where the motor connects directly to a roller that rests on top of the wheel. This design would allow the motors to be mounted to the frame and still accommodate wheel removal.

SamS @ 2023.04.04 8:01 AM Edit or Delete

Awoodward2 @

Thank you so much for commenting. I have considered this as a potential problem and am looking into alternatives such as belt drives and as you said a direct drive wheel motor. If I were to do a motor in place of the rear axle the only way for the power to stay balanced would be to have two motors so that could definietly be an option. Again thank you so much for reaching out. Happy to talk through some more ideas/problems if you are keen. Sam

NWG21229 @ 2023.04.05 8:01 AM Edit or Delete

This would be very useful, great idea. Have you considered other methods of drive, as chain drive could pose problems with the sand. Also, it would potentially require regular lubrication or cleaning which a consumer either wouldn't do or wouldn't like to do. A gear drive setup could be a little better as there are less moving parts, although if its protected from sand either would suit. Have you considered having a direct drive, with the wheels mounted on the motor. This'd prevent excess exposed moving parts and avoid any minor problems from differential wheel speed. Another thought is to have front wheel drive instead of rear, or if its feasible cost-wise, all-wheel drive. All wheel drive would be best as you'd have the most grip no matter how the cart is loaded and could propel the greatest load however, you'd have to do some calculations and/or testing to see if it's beneficial or necessary. If not, front wheel drive may be better than rear as it'd drive in the direction of pull, rather than push at an angle, if the user is trying to turn. Polyurethane wheels are a great idea - very durable and good grip - however incorporating a mild paddle-type design seen on dune buggies and the like might be beneficial, especially if only two wheels are driven.

You've got a great project and design so far, lots of great ideas - a very sellable product. Keep at it!

UpRising @ 2023.06.06 2:11 AM Edit or Delete

Good morning UpRising. Congratulations on the development of your project. As one of this year's UpRising students, you have been invited to

UpRising @ Stone&Chalk - Program X - Tickets are open now.

Click here to get your ticket. https://events.humanitix.com/uprising-stone-and-chalk

Our big event for this year, UpRising@Stone&Chalk, July 14th Friday 10am to 2pm, and you get first dibs. This will be in the second week of the school holidays. It doesn't mess up your school time and makes it as easy as possible for you to get there. In a cool building, in an amazing place, in the heart of innovation in NSW.

There is a limit of 50 attendees, with the first invitations going to you, the UpRising students of 2023. If there are any spaces left by the end of this week, we will create a second round of invitations that you can pass onto a classmate from your design class. Please complete this survey if you haven't already to help us know exactly what you want to get from this opportunity. Teachers are most welcome to the event as well.

UpRising @ 2023.08.22 3:34 AM Edit or Delete

Congratulations Sam on your fantastic efforts with your MDP, it has been great to be part of your design journey this year.

Sustainable Pool Inflatables



20 February 2023 by ebony

40

Addressing the life cycle of plastics, and their lasting effects on the environment will not be enough to solve the global crisis of plastic pollution! Instead, we need to look at the manufacturing process of products made with plastic, and how we can reduce this domino effect. My design proposal is to design a sustainable, biodegradable alternative to plastic pool inflatables, which aims to communicate to the world the opportunities in alternative materials to plastic.

Share:

NSW

What do you think?

Post Comment Comments

UpRising @ 2023.02.22 10:43 AM Edit or Delete

This sounds amazing Ebony. Have you connected with the Australian Circle Hub community https://acehub.org.au/

Lots of great information and people in there working on issues around plastic. Love your approach to targeting inflatable pool products. Never thought of them of a problem before your post, so thank you for opening my mind to this.

A great way to engage the next Gen.

michael.jebreen@cqumail.com @ 2023.04.04 10:43 AM Edit or Delete

I took on a similar challenge in one of my engineering units finding a plastic replacement

generally. It might not suit the purpose, but polylactic acid plastics (PLA) (plant-based) seem promising and are readily available. Life cycle impact and cost were considered (among other parameters) for use as a clothes peg. Have you considered existing materials that could be used in current manufacturing systems (like PLA)?

UpRising @ 2023.06.01 2:36 AM Edit or Delete

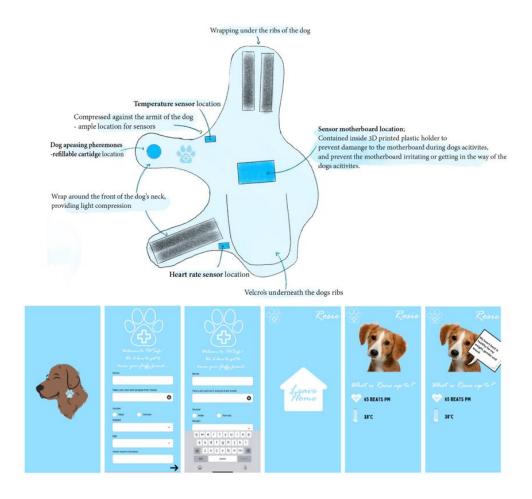
Great update of your design image Ebony. Looking good.

UpRising @ 2023.06.06 2:04 AM Edit or Delete

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Dog separation anxiety product range



22 February 2023 by Connie_

16

NSW

I am designing a range of products that help to ease dog separation anxiety and reduce owner anxiety through remote tracking of their fluffy friend. These products are customisable to the dog. My range will involve a compression jacket in a winter or summer option, pattern/colour personalisation and additional pheromones in the form of a refillable filter. The jacket will contain a working body temperature sensor and the exploration heart rate sensor. As well as an

app with feedback of the dog's vitals/sensor data, & tutorials on how to use the products in the range.

What do you think?

Post Comment Comments

Connie_ @ 2023.02.22 4:09 AM Edit or Delete

I need assistance with transferring data from the temperature sensor to the Thunkable app (wirelessly) with continuous upload/feedback of the numerical temperature, can anyone help me?

Juliette Connolly @ 2023.02.27 5:12 AM Edit or Delete

Really like your thinking here and it's a big opportunity space - have you considered how your innovation would need to be placed in the market compared to existing "anxiety soothing" jackets such as Thundershirt? What additional need or job to be done is your product will fulfil?

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.08 12:34 PM Edit or Delete

Hi Connie,

What a wonderful idea! Have you given some thought yet to innovative ideas like creating a "product as a service" model so dog owners could lease/rent your products instead of buying and owning them? This way you could retain ownership and control of all of the really valuable materials and components inside the product and reuse them again down the track, instead of needing to source and buy more materials. This would avoid so many valuable materials in your products adding to the growing tonnes of waste Australian citizens accumulate as 'idle goods' in their homes and that end up in growing piles of landfill. A great opportunity to gain extra recognition for innovation in your project. Happy to help you with more information on this!

Warm regards,

Chelsea McLean, Circular Economy Pioneers

IdeaSpies @ 2023.03.08 3:09 PM Edit or Delete

This dog collar idea may give you more ideas https://ideaspies.com/posts/a-dog-collar-that-detects-emotions

Connie_ @ 2023.03.09 4:45 AM Edit or Delete

Thank you Juliette Connolly for your reply:) I have taken your comment into account and changed my pattern to differentiate my design to pre-existing designs such as the "Thundershirt".

Connie @ 2023.03.09 4:48 AM Edit or Delete

Thank you Chelsea McLean for your reply:) This is a great idea! How would I make is suitable for the jackets purpose as it involves being worn constantly and experiencing wear and tear from the dogs daily activities?

Circular Economy Pioneers Australia - Chelsea McLean @ 2023.03.09 9:43 AM Edit or Delete

Hi Connie, that is a great point about 'wear and tear' from use. It seems like are many different materials and components in your product/s. If you design your product range so the various materials that go into them can be dissembled/separated then some materials/components will

be reusable and others may need replacing in time. Ensuring materials can be separated will be key to this! What other questions do you have about the product-as-a-service (PaaS) idea? Do you suggest pricing as part of your design project? Kind regards, Chelsea

GeordieL @ 2023.04.12 8:19 PM Edit or Delete

Hi Connie,

Wonderful concept. Just wondering with some of the minor aspects of the vest like the velcro, could a clip or a button be more practical? Just with the dog's fur getting caught, tangled, knotted and pulled and if the dog simply just wanted to get out of the vest, I'm sure it would be able to undo the velcro strap on something and escape out of the vest. Would there be any concern of a hygiene issue if the dog were to wear the vest for many hours each day while the owners are at work? Could the vest be washable?

Keep going with this one, I like the concept:)

UpRising @ 2023.06.06 2:02 AM Edit or Delete

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UpRising @ 2023.08.22 2:12 AM Edit or Delete

Congratulations Connie on your fantastic efforts with your MDP, it has been great to be part of your design journey this yea