PRESS RELEASE

Coronado Unified School District

April 26, 2023
Contact: Maria Simon, Public Information Officer
maria.simon@coronadousd.net

**Coronado Students Win International Design Manufacturing Competition**

Coronado High School juniors Kailani Lenert and Jasmine Lo, along with freshman Sean Wilbur and El Capitan High School junior Ava Raugust, joined forces as a team and recently won first place in the high school division of the RAPID + TCT 2023 Design Manufacturing Challenge. The competition focused on additive manufacturing and 3D technology and is a precursor to the industry conference that will take place on May 2-4 in Chicago.

“We have been meeting on weekends and working on this project since December. We created design prototypes, did a lot of research and writing and video shoots before we submitted the project digitally in February, and now we are going to Chicago in May to accept our award and attend the conference” said Lenert, explaining that, “our team name is ‘ModMedTech’ which is a shortened version of Modular Medical Technology, which is a description of our product.”

For their project, ModMedTech designed an ‘Adaptable Emergency Survival Backpack’ using multipurpose modularity. The competition theme/challenge was to create a product that could be used to help with natural and manmade disasters that cause temporary homelessness. The team’s solution was a backpack (ModPack) that stores survival and first aid items in a modular cylinder (ModPod). The entire product can be 3D printed. “It’s cylindrical, think of a Pringles can with different size modules that stack on top of each other,” explained Wilbur

Lenert and Raugust initially paired up for the project and then invited Lo and Wilbur to join the team. “We had no experience and didn’t really know the process, but we just figured it out as we went. We were very fortunate to have NASA engineer Pete Waydo as our advisor, he really helped us focus on how to address the theme and what to include,” said Lenert.

“We all worked together but each brought our different strengths to the job,” said Wilbur who worked with Lenert on the 3D models. “Jasmine and Ava did a lot of the research and core development. Ava created meeting agendas and she and Kailani did a lot of the video editing,” he explained.

All four members worked on the write-up (a nine page research analysis of the solution to the competition challenge that addresses the theme, manufacturing process, constraints, design, cost, and conclusion).

“The experience taught us a lot about leadership and collaboration,” shared Lenert.

Both Wilbur and Lenert spent three years on the Coronado Middle School Robotics team and now both serve as coaches for their former team. “That experience really helped us in this competition. We had learned how to manage a team and reach a collective goal. The leadership lessons we learned through CMS Robotics were definitely applicable on this,” said Lenert.

Lo said that she was excited to win but shared that “it was really fun just to work together and explore additive manufacturing, and work with Pete (Waydo). The most valuable part for me was connecting as a team with a shared passion to make a product that we are all proud of and that might make a difference and have a social impact.”

Lenert, Raugust, and Wilbur will attend the conference in Chicago. “We are each going with one of our parents and we will receive the award, but I’m most excited to just be at the conference and meet people in the industry and interact with business people from major companies and college students who are working on manufacturing ,” said Wilbur.

Lo is unable to attend because she is scheduled to take an AP exam during that time. “This is the first year the competition has included a high school division so I don’t think they realized about the AP overlap,” she said.

All three CHS students aspire to futures in STEM. Lenert wants to be a mechanical engineer and is interested in robotics and 3D printing. Lo sees herself doing something in the STEM workforce. Wilbur shared that “it’s a little early for me since I’m just a freshman! I feel like I have some time to figure that out, but definitely something in STEM.”

The team did all of their work outside of school and used free 3D modeling software. “We pioneered it on our own and we learned a lot. We encourage everyone to join the competition. The more the better. We are happy to help any other students that want to try it next year,” offered Wilbur

As part of their first place award, ModMedTech will receive a check for $1,000 in prize money at the RAPID + TCT conference.

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PHOTO:
(l-r) CHS students Jasmine Lo, Kailani Lenert, Sean Wilbur, and Ava Raugust (not pictured) recently teamed up to win the high school division of the RAPID+TCT 2023 Design Manufacturing Challenge Competition.