

## HMS SeaBots: Marine Explorers (MS-132)

### ***Describe how your team is giving back to the community and why do you think it is important?***

Our team wanted to give back to our community by participating in the SeaPerch Community and Outreach event. Trying to find a community service activity during a pandemic was a little challenging. However, our team thought about using our 3D printer to help a cause. We decided to create face shields for the Burlington County Animal Shelter located in Westampton, New Jersey.

We wanted to be able to support the shelter by donating these safety materials. We know that many businesses and nonprofits were forced to change their way of business due to COVID-19 restrictions. We thought the face shields would be a great idea because not only will they protect the employees from COVID, but they will also protect them when they are working with the animals at the shelter.

We appreciate the Burlington County Animal Shelter's efforts to help animals despite the pandemic. The shelter serves to help find homes for stray or unwanted animals, and is determined to make sure they all receive the love, care and attention they deserve. With the hard work of their dedicated volunteers and employees, the shelter is able to save thousands of animals every year and even reunite lost pets with their owners.

We created the shields by printing the headband part with our MakerBot 3D printer. We used a 3D print file that the University of California San Francisco posted on their official website. The design of the face shield was created by the engineers of the university and posted online for public use. It was great to see how the engineers at the university incorporated the engineering design process while designing their face shields!

After printing multiple copies of the headbands, the next step was to hole-punch and attach a transparency to each headband. These transparencies enabled protection while allowing users to see clearly. We attached strips of foam on the inside of the face shield to create comfort for the user. The last step was to place a rubber band on the back of each headband so the completed face shields can be securely worn.

Three of our team members delivered the face shields to the Burlington County Animal Shelter on April 30th. We were excited to help the shelter by donating the shields and having the opportunity to give back to our community. The shelter was happy to receive our face shields and plans to use them in their clinic.

### ***Supporting References:***

<http://hms.mtlaurelschools.org/subsites/Maureen-Barrett/SeaPerch-Team/index.html>

