

INCORPORATE CREATIVE MINDSETS INTO PPE EXPLORATION

February 17, 2021



Xue Dong is an Assistant Professor at East Stroudsburg University (ESU) Art + Design department. Xue obtained her MS Degree in the industrial design field at Auburn University. Her teaching responsibilities include 3D design and the product design field. Xue has been a member of NAEA since last year!

The spread of COVID-19 and reopening has placed healthcare providers and the surrounding community at high risk. According to this situation, Professor Darlene Farris-Labar and I worked together to solve the PPE demand problem. The purpose is to reduce employee exposure to hazards and provide a safe and efficient working environment through a collaborative group. By establishing partnerships with Lehigh Valley Health Network and local makers around the area, ESU was able to mass-produce face shields and stethoscopes over the past few months, at a much faster rate. Our contribution has been featured in *IDSA (Industrial Design Society of America) Membership Spotlight*, *CHANNEL 16 NEWS WNEP*, and *Pocono Records Newspapers*.

Even though our 3d printed face shield design has made a breakthrough in helping those on the frontlines, we still would like to examine other needs of the medical community. We have involved students in redesigning medical equipment funded by ESU 2020 S.U.R.E grant and "Out of the Box Grant".

These grants allowed three students to work with PPE solutions such as enhancing voice face mask “Bee Head” face shield and Lip-read” mask to respond to the new reopen challenges, while simultaneously providing an educational and experiential component. We incorporated creative mindsets and social responsibilities throughout the whole project. Finally, the team has developed and manufactured reliable and functional PPE solutions for the whole community. Through participating in this project, students were able to apply expertise in product design, digital fabrication techniques, as well as entrepreneurship strategies to the real-world scenario. As in addition, there is also further investigation in sustainability, safety, survey, and mass production. Their work has been featured in the College of Central Florida Webber Gallery’s “Masks and Makers.” Exhibition.

To continue to meet the ongoing and dynamic needs for PPE, as the vital and manufacturing hub, ESU’s 3D Printing Super Lab would like to have continuing conversations and opportunities among memberships of PAEA, art professionals, and students. We hope this project will establish a perfect foundation as an on-going subject among interdisciplinary opportunities for the art educators, students, healthcare professionals, and community.



PPE Explorations of ESU Students



PPE Explorations Team



“Bee Head” Face Shield and “Read-lip” Mask