

3D Printing Airway Trainers: BME 400

Dates: 11/28/25 - 12/05/25

Client: Kristopher Schroeder, MD

Advisor: Dr. Paul Campagnola

Team:

Matt Sheridan (Communicator)

Dan Altschuler (Team Leader)

Cody Kryzer (BPAG)

Lance Johnson (BSAC)

Elleana Thom (BWIG)

Problem Statement

Airway management is an integral part of keeping a patient stable in many medical environments. While training medical practitioners with simple airway trainers has improved patient outcomes, this has not had the same effect on patients with abnormal airways. The use of 3D printing from existing patient imaging to create realistic and individualized airway manikins would assist medical professionals, allowing them to practice airway management skills on lifelike models.

Brief Status Update

At the final week the team has completed the poster, testing, and the final prototype for the Fall semester. A lot of time was spent in the makerspace finishing building the prototype, creating the silicone negative mold and in ECB finalizing testing. The team also gave their presentation on friday.

Weekly Goals and Accomplishments

- Team
 - Finished the manikin
 - Finished the negative model
 - Finished testing
 - Finished the poster
- Matt Sheridan
 - Finalized the prototype at the makerspace
 - Finished the negative model
 - Helped write the poster
- Dan Altschuler
 - Finalized testing
 - Created the final prototype
 - Worked on the poster
- Cody Kryzer
 - Worked on the manikin and finished it at the makerspace
 - Helped work on the poster
- Lance Johnson

- Finished testing of the final prototype for the poster
 - Helped the team at the makerspace building the final prototype
 - Worked on poster
- Elle Thom
 - Helped in the makerspace building the manikin with the team
 - Worked on the poster

Upcoming Goals

- Team
 - Finalize the final report
 - Finalize the team notebook
- Matt Sheridan
 - Finish the final report and notebook
- Dan Altschuler
 - Work on the final report and team notebook
- Cody Kryzer
 - Work on report and notebook to turn in next week
- Lance Johnson
 - Finish the final notebook and and report
- Elle Thom
 - Work on the final report and notebook
 - Turn them in and upload to website