

3D Printing Airway Trainers: BME 400

Dates: 02/06/26 - 02/12/26

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

The team is strategizing their designs and projects for the semester.

Weekly Goals and Accomplishments

- Team
 - The team's main goal this week was to finish the preliminary presentation.
- Matt Sheridan
 - Worked on preliminary presentation
- Dan Altschuler
 - Worked on preliminary presentation
- Cody Kryzer
 - Worked on preliminary presentation
- Lance Johnson
 - Worked on preliminary presentation
- Elle Thom
 - Continued work on preliminary presentation
 - Looked into testing and fabrication plans

Upcoming Goals

- Team

- Start looking into design ideas and fabrication plans
- Matt Sheridan
 - Worked on the negative of the airway with Lance
- Dan Altschuler
 - Work on the new trainer base
- Cody Kryzer
 - Design a new trainer apparatus
- Lance Johnson
 - Work on adjusting/adapting the airway negative to accommodate our modularity
- Elle Thom
 - Start looking into the best way to print an intubation manikin face to use for the prototype outlook