

Bed-mounted Modular Procedural Training Surface

Date: 10/8/2026

Client: Shannon DiMarco

Advisor: Darilis Suarez-Gonzalez

Team:

Nathan Knight – Team Leader and BSAC (nknight3@wisc.edu)

Evan Koelemay – Communicator (ekoelemay@wisc.edu)

Tess Fitzgerald – BWIG (tkfitzgerald@wisc.edu)

Andrew McLaughlin – BPAG and BSAC (asmclaughlin@wisc.edu)

Problem Statement:

A secure, lightweight, procedural workstation is crucial for clinical simulation centers to conduct procedural training. Current solutions leave much to be desired as they lack stability, take up excessive floor space, or exhibit tipping hazards. To resolve this, the team is being tasked with designing a modular workstation attachment to existing bed architecture. The workstation must be compact for storage, quickly attachable, and meet desired constraints for sanitation and safety.

Brief Status Update:

- Last week, the team presented at the preliminary presentation to other BME Design peers and advisors, Dr. Suarez and Puchinelli. The team worked on the Preliminary Report which is now posted on the website in order to describe and explain everything that the team has worked on so far. The process of the design is now moving into the prototyping and designing phase.

Project Difficulties/Advice Requests:

- None to report

Current Design

- This project is still in the research phase. There is no current prototype or design as of this week.

Materials and Expenses:

- None to report, see table below:

[illegible]

									\$0.00	
								TOTAL:	\$0.00	

Team Goals for Upcoming Week:

1. Set up a timeline for the rest of the semester.
2. Start ordering base materials online.
3. Meet with the client to discuss the plan for the rest of the semester.

Individual Goals for Upcoming Week:

- Nathan Knight
 - Meet with the client/visit sim center
 - Work with team to obtain any purchased materials/update documents
- Evan Koelemay
 - Meet with client in dim lab
 - Discuss material ordering with client and team
- Tess Fitzgerald
 - Order materials to begin base fabrication
 - Meet with client at the simulation lab to get a better understanding of the space and design expectations
- Andrew McLaughlin
 - Begin acquiring the necessary materials for prototyping
 - Try to reach out to the client and make time to set up a meeting
 - Update previous documents (PDS) to update design specifications

Timeline

[illegible]

Final Lab Notebook																	
Final Report																	
Final Evaluations																	
Meetings																	
Team	X	X	X														
Client	X		X														
Advisor	X		X														
Website																	
Update	X	X	X	X													

Previous week's goals and accomplishments:

- Nathan Knight
 - Work on the preliminary report
 - Go to the simulation lab during client availability
 - Review and adjust any preliminary deliverables
- Evan Koelemay
 - Visit simulation lab
 - Begin work on preliminary report
 - Contact client for material ordering
- Tess Fitzgerald
 - Start working on the preliminary report.
 - Visit the simulation lab.
 - Order polypropylene materials for fabrication.
- Andrew McLaughlin
 - Begin to work on the report
 - Begin organizing and getting the necessary information for BPAG
 - Visit the simulation lab

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Nathan Knight	10/6/2026 10/7/2026	Complete portions of the preliminary report assigned to me Meet collectively with the team to review and finish up the preliminary report	3 1	4	12
Evan Koelemay	10/8/2026	Completed assigned sections of preliminary report Continue working to get an in-person sim center meeting set up	4	4	13.5
Andrew McLaughlin	10/3/2026-10/7/2026	Culminate all the research and designs done and draft the preliminary report	5	5	16
Tess Fitzgerald	10/8/2026	Completed materials, methods, and fabrication sections of preliminary report Performed peer and self evaluations	5	5	16
Team	10/7/2026	Team meeting to discuss preliminary design.	1	1	3