

Bed-mounted Modular Procedural Training Surface

Date: 9/10/2026

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:

- This week was the first week of the design project. The team met with the client and learned about the client's needs for the project, and also about the overall scope of the project. Each team member conducted individual research in LabArchives.

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]

								TOTAL:	\$0.00	
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Team Goals for Upcoming Week:

1. Continue research on the procedural training surfaces.
2. Begin drafting product design specifications (PDS)
3. Meet with client to discuss goals and expectations

Individual Goals for Upcoming Week:

- Nathan Knight
 - Further research the project and begin brainstorming design ideas
 - Work on the PDS
- Evan Koelemay
 - Follow up on research using details from the client meeting
 - Begin work on PDS
 - Brainstorm initial design ideas
- Tess Fitzgerald
 - Continue researching competing designs in the modular training surface space.
 - Use information/expectations from client meeting to begin mapping out possible prototype ideas
 - Draft PDS
- Andrew McLaughlin
 - Continue to research the project with a better understanding of the client's constraints
 - Begin brainstorming prototype and design ideas to meet the client's expectations
 - Work on the PDS

Timeline

[illegible]

Preliminary Evaluations																	
Show and Tell																	
Final Poster Presentation																	
Final Lab Notebook																	
Final Report																	
Final Evaluations																	
Meetings																	
Team	X																
Client	X																
Advisor	X																
Website																	
Update	X																

Previous week's goals and accomplishments:

- Nathan Knight
 - Began looking into typical hospital bed structure and current attachments
 - Completed role-related responsibilities
- Evan Koelemay
 - Contacted client to set up meeting
 - Listed questions to bring up to the client during the meeting
 - Began research into current designs on the market
- Tess Fitzgerald
 - Researched competing designs
 - Brainstormed questions to ask client at meeting this week
- Andrew McLaughlin
 - Researched current workstations that are utilized within the medical field
 - Drafted questions to ask our client during the meeting
 - Completed role-related responsibilities

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Nathan Knight	9/10	Looked into current hospital bed attachments, prepared thoughts to acquire information from the client, set	2	2	2

		up Labarchives/progress report			
Evan Koelemay	9/10	Looked into competing designs, set up client meeting, brainstorm questions	2	2	2
Andrew McLaughlin	9/9	Research competing designs and brainstorm questions	1	2	2
	9/10	Continued Research on workstand specifications	1		
Tess Fitzgerald	9/10	Brainstormed questions for client meeting regarding physical property requirements. Set up a shared google drive. Uploaded progress report to website.	2	2	2