Work Completed:

During the 10th week of senior design 2 Bhavin and I were able to finish the cross member system of the board. We attached the cross members and they work very well (figure 1).

![Attaching cross members](image1.jpg)

Figure 1: Attaching cross members

Also, as a team Drew, Bhavin, and I drilled and tapped to attach the hand bar. We used the drill press (figure 2) to drill and then attached the arm bar with brass screws (figure 3).
Figure 2  Drilling for hand bar

Figure 3  Attaching hand bar
We had Drew lay on the board to do some preliminary testing and it works very well as seen in figures 4 and 5.

**Figure 4:** testing arm stabilizers

**Figure 5:** Testing leg stabilizer
We tested it for comfort, stability, and ease of use. Drew found the device to be very comfortable and stable, while those using it found it easy to use and adjust. I used the router to take the sharp corners off of the device. I routed the board (figure 6) along with any sharp edges on the attachments.

![Figure 6: Routing edges of board](image)

I also milled the arm stabilizer track 3 inches longer to allow for more sliding of the device (figure 7).
Future Work:

Our patient positioning aid is virtually complete. We would like to just glue some foam padding along the edges of the board to aid in comfort of lifting. Along with this we would like to add a label by the hand bar stating not to lift the board using the hand bar. Last, we just need for our new pad to arrive although this is not crucial to our design. When it arrives we will attach it using Velcro so it can be taken off easily for cleaning.

Project Review:

Currently, we are still on track to finish the device in time. No emergency actions are required to finish on time. The device is virtually finished and testing is in process.
**Hours Worked:**

Lab Hours – 6  
Machine Shop – 2  
Independent – 2  
Total hours - 10