**Work Completed:** The model of the scale was updated in Autodesk inventor. Holes for the load cells were dimensioned, drilled, and countersunk in the second rail. One set had to be widened slightly because it did not line up properly. Learned to use CNC milling to create the reliefs for the hinges on both rail and ramp as well as to align the hinge holes. The first step is to design the tool path, then perform a trial run. The piece was finally cut with good precision. It looks much better than the previous rail. Both the rail and ramp were milled and the holes for the hinges were drilled using the miller to plot out the initial location. The screws for the hinges had to be cut and ground down so that they do not contact the load cell which is close to the hinge.

**Current Status:** The rail is almost ready to be welded. Welds will again be concentrated in the center of the rail. Another back side needs to be cut after the sides are welded on and the gap is measured.
**Future Work:** The next step is to find a good location for the handle that is balanced in the middle. After the holes for the handle are drilled the sides can be welded in place. This leaves the tapering of the ramp to be completed. After both rails are complete and tested the carpeting and aesthetics can be added.

**Project Review:** The second rail should be completed by the end of next week or early the week after spring break.

Hours worked: 12