The week started off very good. The members of team 2 got many parts in we had been waiting on. We got in the large front wheels for the wheelchair, foam, naugahyde material (for the support system pads of the standing gardener), and small casters for the standing gardener. However, the largest and most important thing that came in was the building material for the standing gardener: the steel.

The first task was to drill holes in the pipes to make the telescopic legs for the standing gardener. The plan was to drill 14 holes at two in intervals in each of the 16 pipes (8 small pipes and 8 larger pipes) that would make up the legs. The small pipes had an outer diameter of 1 inch, and the larger pipes had an outer diameter of 1 ¼ inches. Both had a wall thickness of 1/8 inch. Therefore, the smaller pipes would just have enough clearance to fit inside the larger pipes without a problem.

The holes drilled, we agreed, would have the diameter of 5/16 of an inch. This would be small enough as to not compromise the structural integrity of the steel pipes, yet be large enough to support a bolt so the pipes would not collapse on one another when they were loaded.

After the steps were all planned out, it came time to drill. The picture below shows me drilling with the miller.
It took a long time, because of the 14 holes in each of the 16 pipes. Not to mention each hole had to be drilled twice, once with the center drill and once with the actual drill bit. The purpose of the drilling with the center drill first was so that when it came time to do the actual drilling, the drill bit didn’t “walk” or move on the material and possibly damage the bit or material.

The picture below shoes the act of drilling twice.
One can see the center drilled holes to the left of the drill bit, and the fully drilled holes to the right of the drill bit.

Hours Worked: Friday (4), Monday (3), Tuesday (3), and Wednesday (3).

Total hours worked in Week 3: 13 Hours

Future Work: Filing down the holes so the pipes fit inside each other.