Progress Report Week #2

Standing Gardener

Work Completed/ Future Work

This week for the standing gardener we were hoping to accomplish a lot more than we were able to. The reason we could not get done what we wanted to is because our metal order did not come in. However, we did run into some order problems with other items. Amazingly we were still busy with fixing orders and getting reports on our website.

To fill our time even more we tried to prepare ourselves the best we could for when our metal did come in. We started this by going to the machine shop and asking the instructors the best way to get what we wanted done. We have come back now knowing we will be using a Computer Numerical Controlled miller to drill the holes in the pipes and tubes of our device. Before we can do this we must predrill all the holes to make sure our piece of stock doesn't walk. If the metal moves while we are drilling we will not be able to get a precise distance between each hole. This could mean the standing gardener table will not be level.

The sheets of metal which will be on the top and bottom of the device will have an outer radius, shown in figure 1 below. We first wanted the company to cut this radius out of the sheets themselves using a plasma cutter. However, their plasma cutter is manual which means the cut will not be perfect. We were hoping they would have a computer numerical controlled plasma cutter. We now decided we are going to cut
the radius's ourselves in the machine shop. We will be using a band saw to cut the radius into the sheets of stainless steel.

![Figure 1: Stainless Steel Sheet for Standing Gardener.](image)

Luckily we got some parts in this week. Our foam and our fabric came in. These will be used to make the pads on the support system of the standing gardener. We will be sewing the fabric into pouches which will hold the foam. Then the foam will be anchored to the standing gardener support system.

Our future work for this device will be to drill the holes in the tubes and the pipes of the support system. Also we will begin practicing sewing since we will be sewing our pads by hand. Once we feel confident in our sewing skills we will begin making our pads. We will also begin cutting our sheets of stainless steel and laying out the tube and pipe patterns. Once the sheets are all cut and layed out we will weld the tubes and the pipes onto the sheets of metal.
Multi-Terrain Wheelchair

Work Completed/ Future Work

During last week's group meeting a good point was brought up to us from our instructor. Do we know anything about building wheelchairs? Well of course not, but we can build one. But why not just buy a wheelchair which is already built and revamp it to make it multi-terrain capable. We began searching for used wheelchairs which we can use the frame from. We will need to make the seat removeable as well as the frame adaptable to adding a seat chosen by the client. Not only this we will need to remove the wheels from the device and add our own wheels on. To add the new wheels we may need to change the axels currently being used.

We found one wheelchair which was close to where Fred lives. Fred checked out the wheelchair but it was too small it was meant only for really small children. Then Pete found another wheelchair, we called the owner asked some questions and found out its near Fred again. So as I am typing this Fred is picking up that wheelchair.

Also we will need to design a new brake which will be able to be used with the new wheelchair. The brake we previously have designed will be the basic idea with a few minor changes for compatibility purposes. The previous brake is shown in figure 2 below.
This week we are hoping to disassemble the wheels of the wheelchair we are buying and remove the current seat.

Hours Worked: 1