Every member of team 2 has been working as hard as possible to get the project as close to the initially proposed timeline as possible, and it’s safe to say that significant progress has in fact been made. The current drawbacks seem to be of minimal proportions and the team is doing its best to overcome them while avoiding any devastating delays. This week’s focus continued to be the main structure of the standing gardener, and due to the size and weight of the parts every team member’s participation was required.

We began on Friday 02-13-2009 by drawing out a template on both steel plates (which are to be used as the top of the workspace and a bottom shelf for the standing gardener). For a reminder of the templates’ shapes, please refer to Figure 1.

![Figure 1 – Shape Templates (Top Plate – Left, Bottom Plate – Right)](image)

The process itself was rather tedious given the size of the plates as well as the fact that some circular objects needed to be drawn. After this was completed the plates were carried from the senior design lab to the machine shop; a process which in fact required
the participation of all team members due to the significant weight of the uncut stainless steel plates.

Once in the machine shop, we were once again reminded that a plasma cut would produce a very unappealing edge. For this reason we decided to use a drop saw, and cut the plates in a tangent fashion around the semi-circles to produce a circular shape. Given the weight of the plates and the large number of cuts that needed to be made, the assistance of all team members was required. The numerous tangent cuts did in fact produce a circular looking shape; however, the shape was very rough to the touch and had evident imperfections which would later need to be filed down. The major drawback for the completion of this part of the project is that the machine shop does not have the necessary, or rather preferable, tools to complete many of jobs we need to perform. Consequently, we are trying to do the best we can with machinery often designed for different purposes. For this reason some of the jobs are more time consuming than they initially appear. On Friday we got to lab at 1:00 pm and started our work promptly. Before the machine shop closed at 4:00 pm we were only able to complete cutting the rough looking semi-circular outlines of both plates.

Even though all of the holes in the telescoping bars have been drilled the previous week, countersinking of the holes still needed to be performed, and they also needed to be filed to eliminate rough edges. This process also took a considerable amount of time with multiple team members working at a time, but luckily has been completed. Furthermore, the hole-drilling left debris inside of the larger pipe and hence telescoping became nearly impossible. The smaller pipe needed to be literally forced through the larger pipe several times before telescoping became possible once again.
On Tuesday 2-12-09 I arrived at the machine shop at 10:00 am and did not leave to even take a break until closing time at 4:00pm. During the majority of that time I sanded the outside of the plates, which were cut on Friday, and cut out the remainder of the template from the main plates. By the time I left, the plates did in fact look much more circular and significantly less rough than before but further sanding is required to achieve the desired shape as well as finish. We are also considering placing some sort of a plastic seal around the outside perimeter of the plates to hide any small imperfections which may remain, and to ensure that no one will get cut on any sharp edges on the plates.

Considering the Wheelchair, we have placed the project on a temporary hold since we feel it is of a smaller scope of involvement. However, plates which will attach to the front wheel castors have been made. In addition, slight modifications have also been designed and planned. We also feel that since the parts involved will be much smaller in size, we will be able to separate the work amongst each other much more effectively once the main structure of the standing gardener is completed.

This week I have spent a total of roughly 14 hours working on this project. This includes all the time spent in the machine shop as well as some minor planning considering slight possible modifications for the team to evaluate. Further work for the team as a whole includes: finish welding the foot plates onto the telescoping pipes for connection to the main top and bottom steel plates, continue to sand the main plates, drill holes in the main plates for the attachment of the foot plates, connect the telescoping legs to the main plates, obtain wood and cut it to size, as well as connect the wheels to the wheelchair frame.