Introduction

Continuing from last semester's work, our group needed a meeting with our client to confirm our optimal designs for our standing gardener and multi-terrain wheelchair. We have had all of our parts decided before our meeting and any necessary changes were ready to be accommodated. We are hoping to get a lot of our projects done quickly in the next few weeks once our parts come in.

Standing Gardener

Work Completed

During our first fiscal week, our parts have been chosen and finalized with our client's consent. Order forms were filled out for all of our accessory parts such as castor wheels, foam padding, and waterproof materials to cover our pads with. Our castor wheels were ordered from Castor City. These wheels are 4" in diameter and each hold up to 250 pounds of weight. Also, color was decided based on our client's favorite color, blue. Figure 1 shows the castor which was ordered. The foam ordered is shown in figure 2 and is poly foam which is of medium firmness, ordered from The Foam Factory.

Figure 1: Total locking polyurethane castor wheel.
Finally the fabric was ordered from Sailrite and is Naugahyde Universal Navy Blue. It is water resistant and easy to clean. Also being ordered is 304 stainless steel which will be used for most of the standing gardener. We also had a meeting with our client this past week. We finalized our optimal design of the standing gardener and asked for any changes she would like to add. All changes she asked for were small and are able to be added once the gardener is finished.

**Future Work**

This upcoming week our metal orders are supposed to come in. The metal we are using is 304 Stainless Steel. This material will be used to build the frame and workspace of the Standing Gardener. Once the material is in we will be drilling holes in the tubes and pipes of stainless steel. Once the drilling is finished we will weld these pieces to the two sheets of stainless steel to form the frame of the device. Much of our work this upcoming week will be done in the machine shop.

**Hours Worked: 3**

**Multi-Terrain Wheelchair**

**Work Completed**

This past week was the same for the wheelchair as it was for the standing gardener. We ordered all of our wheels and the fabric which will be used. The wheels for the multi-terrain wheelchair had to be special orders and could not be just any wheel. They were chosen for their size and traction on certain terrains. We ordered these wheels from Wheeleez inc. We had to order two sets of wheels. The first set are larger wheels which will be used in the rear of the wheelchair and are made of polyurethane. They are 19.3 inches in diameter and are 9 inches wide, shown in figure 4.
The front wheels of the wheelchair are larger castor wheels. They are 11.8 inches in diameter and are 7.3 inches wide. The front wheels are made of pvc, shown in figure 5 below.

These wheel also had to have a housing unit ordered with them. Finally we ordered aluminum to make the frame of the multi-terrain wheelchair. This order is combined with our order of stainless steel for the standing gardener. We also confirmed the optimal design of the multi-terrain wheelchair which our client this past week. Any changes asked were taken into consideration before parts were ordered.

**Future Work**

This upcoming week will be much like what we have in store for the standing gardener. We will build the frame of the device. This will call for us to cut tubes of aluminum and weld them according to our design. Once the rear wheels come in for the multi-terrain wheelchair we will have to create an axel for them to connect to the frame.

**Hours Worked:** 3