Work Completed

The week started out with again working on the website. I worked with Robert Sheahan at the Engineering II help desk in the beginning of the week. He helped me to get rid of all the “bugs” in the website. Once he was done we were able to upload our documents on our own. The website is now working how it should be. That had alleviated the major problem that we ran into last week.

Wednesday brought the start of the testing portion of the PVC. It had already been cleaned with a solution of bleach and water. The next step was to sand the PVC so that the surface is not as smooth. This would create a rougher texture on the surface which will help the epoxy and the paint adhere to the surface better.

Once the surface of the PVC was sanded the epoxy could then be applied. Before applying the epoxy it had to be mixed. The back of the epoxy container said to mix the two parts together until the blue color went away. It also gave a temperature at which it needed to be stored. However, the temperature of the room was not high enough and this lead to problems when applying it to the PVC. As a solution we tried to microwave the premixed epoxy to see if it would spread better. It seemed to work better so in the future we will probably do this before we apply it to the PVC at all.
The epoxy says that it takes two to four hours to completely dry. However, we are going to wait overnight to be extra sure that it is dry. Over twenty-four hours passed until more work was done with the PVC. The surface was then sanded down until it was smooth. This took more time than we thought because getting the epoxy layered surface completely smooth was not an easy task. Once it was accomplished the surface looked good again and it looked like it was ready to be painted. However, there was a lot of residual powder on the surface so we added another step to the procedure; wiping the surface down to get rid of any excess powder.

A trip to the machine shop was now in order. We went into the room made especially for spray painting. This room had a fan going the whole time to ensure that adequate ventilation occurred the whole time. Blue Krylon® Interior and Exterior Spray Paint was used. The directions said that the paint dries in twelve minutes and is ready to be handled in one hour. The first coat was applied on Friday, February 9, 2007 at 1:30 pm. The second coat was applied on the same day at 3:00 pm. This was more than enough time between the coats to make sure that they were dry.
After another hour had passed once the second coat of spray paint was applied a scratching test was performed. We took our fingernails and tried to scratch away the paint. The paint easily scratched away in the areas that were not first treated with epoxy. The areas that were pre-treated with epoxy no visible scratches could be found. This is very important because that was our goal: to find a PVC painting method that once completed would protect the paint from being scratched off. To further protect the paint we are going to purchase some form of a top-coat. This will add durability as well as make the game look more polished.

Contact with Mike Zenker was again made. I talked to him on Thursday, February 8 in regards to the wheel mold. He told me that he was waiting on the person that actually makes the molds. He also said that he was going to pay this man a visit and that hopefully by early this week he will be able to answer us. Getting this wheel-mold is something that would greatly help our project. Once we have the dimensions (that is if Mike Zenker can provide us with a wheel mold) we can start cutting out the pie-pieces as well as painting them.

We have been talking with Jen from the BME office in hopes that she can set us up with some kind of account at Mansfield Supply Store. At first we were hoping to do a P.O. order, however she informed us that for the amount of money we wish to use at the store it does not make sense to do. So another solution had to be found. Jen said that she is going to try to call the Supply Store and order the items over the telephone and use the BME credit card. As of Friday afternoon we had not heard if this was a possible solution or not. Hopefully it will work and all that we will have to do is pick up the order once it is ready. Early this week we also have to go back to the store to get the actual numbers of the items we wish to purchase. Without the actual numbers Jen cannot order the items over the phone.

Future Work

In the upcoming week we are hoping to purchase the items that we need from the Mansfield Supply Store. We are also hoping that Mike Zenker gets back in contact with us and that he can supply us with a wheel-mold. The initial testing of the SP03 text-to-speech module will be started. The program for the computer will also be downloaded with the assistance of Bill. Finally, the micro-processor chip will be programmed so that testing of that device can begin.

Project Review

Getting the website to work one-hundred percent accurately was something that brought us up to speed with our timeline. The upcoming week we will have to work to stay on track even with the difficulties associated with the SP03 programming and the micro-processor programming.

Hours Worked
12 hours