Work Completed

Construction of the wheel was the main priority this week. Mansfield Supply was visited on Monday March 19, 2007. There, the primer was chosen that would be used on the mold well. Mansfield Supply did not carry either of the primers that were researched online. They did carry Rust-Oleum Specialty: Plastic Primer. The back of the can said that it could be used on a variety of types of plastic, one of them being polypropylene. After reading more on this primer, it was decided that it would be good to be used on the mold well. Along with the primer, a can of red spray paint and a sheet of 320 grit sand paper were purchased.

Construction on the mold well began on Tuesday March 20, 2007. First the mold well was sanded, primarily in areas where unnecessary marks were visible. Through sanding we were able to remove the recycling sign and diminish the visibility of the circles that are outlined on the end of each pie piece. Sanding the mold well also allowed the plastic of each pie piece to be evened out and smoothened. The mold well was then cleaned with paint thinner, as recommended to do on the can of primer. The paint thinner removed all dirt and debris that had accumulated on the mold well. The primer could then be applied. The primer was sprayed at a distance of ten to twelve inches away. It was sprayed in a back and forth motion paying close attention to spray each pie piece including the dividers of the pie pieces (Fig. 1). The can of primer indicated that it is “dried to touch” in twenty to thirty minutes and able to be handled in one hour. This first side of the mold well was allowed to dry for over an hour before it was flipped over and the other side was sprayed. The same spray method was used to this side paying attention that the inside of the lip was sprayed. The primer was then allowed to dry overnight before any paint was applied.
While the primer was drying, the wheel division was analyzed. The color organization was determined along with the assignment of point values. Four different colors will be used: red, yellow, green and blue. Red, yellow and blue will each be used four times whereas green will be used only twice. Red will have the point value of two, yellow will be assigned to four points, blue will be assigned to six points and green will be the bonus point value of ten. Figure 2 displays the color outline of the wheel.

![Wheel Division](image)

**Figure 2: Wheel Division**

On Wednesday March 21, 2007 painting began on the wheel. The brand of the blue, yellow and green spray paints is Krylon Interior/Exterior Spray Paint. The brand of the red spray paint is Rust-Oleum Spray Paint. Spraying the paint directly on the wheel would not be ideal. This is because there is a large chance of the spray paint drifting onto other pie pieces than the one that should be colored. It would not be easy to cover all pie pieces except for the one being colored. Thus a different method was planned out. This method includes spraying the foam brush with the spray paint and then dabbing the brush onto the designated pie piece. This type of painting created a slight textured look which adds visual appeal to the wheel. This is optimal because we would like the wheel to be as visually appealing as possible. Please see Fig. 3 for the start of the painted wheel. There was only allotted time to begin painting the wheel. The green pie pieces were each painted. The paint is a very thin coat thus it will be optimal to apply a second or even a third coat of paint. Applying multiple coats will help to produce a rich color that will look very vibrant on the wheel. The wheel will be completely painted by the end of this week.
Future Work

Once the wheel is completely painted the clear top coat can be applied. This top coat will provide any additional protection to the paint. After this is applied the dowels can be attached to the top of the wheel. This will complete production of the wheel. With that being completed the overall construction of the game can be close to completion. An appointment will be made in the machine shop to work on the harder construction of the game. Once the game is finished being put together testing can begin.

Project Review

This week helped to make up for some lost time. Once the mold well is sprayed with the protective clear coat it will be able to be used in the construction of the entire game. This week’s focus on completing the wheel definitely helped in the process of the game. Once construction is complete testing can begin. Construction should be done in the following week which is on time with the timeline of the entire project.

Hours Worked
13 hours