Work Completed

This week major work was done upon the wheel. We finished painting the wheel in entirety. Each different color required many coats of paint to get the vibrant color that we wanted. There was some difficulty in applying each different color as we did not want the colors to “bleed” onto each other. However, we were finally able get each color completed. In figure one you can see the wheel with each different color in its finished product.

![Painted Wheel](image)

Figure 1: Painted Wheel

Once the wheel was painted a trip to the machine shop was in order. While we were there we cut up the two dowels which we had already spray painted black. Each dowel was cut into seven pieces each to make a total of fourteen small dowels. Each individual small piece ended up being six inches in length. This is long enough so that when attached to the wheel a clicking noise can still be heard. Once the dowels were cut up we used the drill to ensure that the dowel would fit into the plastic with just the right fit. The dowels were then press-fitted into the side of the wheel mold. In figure two, shown below, you can see the wheel with the dowels attached.
The motor was also attached to the aluminum shaft during the past week. A hole needed to be drilled into the center of the side of the shaft that will go through the bearing block. This is the side that the motor will be attached to. The hole needed to be 0.157 inches in diameter so that the motor shaft would fit easily and snugly into the shaft. A hole perpendicular in the aluminum shaft to where the shaft of the motor is to be found was drilled. A lock screw was placed into this hole to ensure that the motor would not slip out of the aluminum shaft while it was in operation. The lock screw was used in substitution of a rubber collar that we were going to look into buying. The motor shaft with the lock screw attached does not move within the aluminum shaft. This is optimum for our project because if the motor shaft is not in the aluminum shaft the wheel will not turn which will therefore stop the playing of the game. This would not benefit the players of the game as it could cause them to become agitated which would not be good at all. Figure three shows how the motor is actually attached to the aluminum shaft.
Future Work

Throughout the next week many things will be worked upon. We will be testing the spinning of the wheel by the motor in lab on Friday, March 30. This test will ensure that the motor provides enough power as well as torque to spin the wheel when it is connected to the shaft. A design of the PCB board will also be drawn up and presented to Bill so that we can go ahead and order it. Testing of the circuit will also continue to occur throughout the week.

Project Review

The past week many things were accomplished. The wheel was painted completely with each different color being very vibrant. Dowels were also attached to the wheel so that when it is spun the clicking noise will be heard. Work was continued upon the circuit towards the purchasing of the PCB board. All in all, this week was a very productive week.

Hours Worked
13 hours