Interactive Wheel of Fortune
Team 4
Week 3 Report

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All problems with the website have been fixed

All group members have authorization to go into the Team 4 website folder and make any appropriate changes

X drive is now properly installed and can be accessed by any Team 4 member

Uploading can now be done through the X drive and all changes are to be made on the local view, not the remote view

The template is now fixed and has been updated
Painting the PVC

- The chosen painting method was carried through
- PVC was first cleaned with a bleach and water mixture
  - 4 cups water to ¼ cup bleach
- PVC was sanded with 150 grit sand paper
- Epoxy was mixed on a separate piece of paper
Painting the PVC

- Epoxy was painted on the PVC
- Epoxy dried on PVC for over 24 hours
- The PVC was then wiped down with a wet paper towel to remove any debris and sanding dust
Painting the PVC

- The PVC was then sanded again
- A first coat of the spray paint was applied
- The paint was allowed to dry for one hour
- A second coat was applied
Painting the PVC

- The second coat of spray paint was allowed to dry for one hour.
- A scratching test was done to test the adherence of the paint to the PVC.
- The spray paint easily scratched off of the PVC that had not been treated with epoxy.
- The spray paint did not scratch off of the PVC that had a layer of epoxy painted on prior to the painting.
Contacts

- Contact was again made with Mike Zenker regarding the lazy susan piece.
- We should be receiving technical information and a possible ship date by the end of this week.
- Mansfield Supply was contacted in regards to purchasing goods.
  - Purchasing can be done by Jen over the phone using credit card.
Purchasing

- Dowels for pie pieces
- Dowels for bearing block support system
- Spray paint
- Protective spray paint
- Epoxy
- Soft jam door stop
- Prism numbers for wheel
- Foam paintbrushes
- Total: $24.18
Code

- Difficulty writing code for random number using Assembly
- Chosen to work with timer 0 concept
- Need to learn how to access registers of PIC16F874
Random number generate 30 random numbers
Subtract random number from itself to obtain zero
Microcontroller configured to output the command associated with the random number
SP03 will pronounce the command associated with the random number
Assembly Program

Main

Initial: initializes all the pins as input and outputs and also gives each of the important register address a name

Check: This subroutine checks to see if either of the two inputs are on (function module or motion Sensor) and initiates the spin subroutine

Spin: This subroutine spins the wheel for a random period of time. First it will initiate the Random subroutine to use the random number. Then it will turn on the motor for that random period of time. Then it will initiate the Delay subroutine to delay the output to Sp03

Delay: This subroutine will delay the output of the Sp03 until the motor comes to a complete stop. In order for this subroutine to work I will need to calibrate the motor to see how long it takes for the motor to stop at a complete stop after running for full RPM.

Random: This subroutine will obtain the random number generated through an interrupt in the timer 0 register and use that value to create random number between 0 and 29
Future Work

- Construction of the game will begin in the following week
- Test SP03, function module, and motion sensor
- Complete Assembly program