Interactive Wheel of Fortune

Week 11

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Construction

- Construction was completed on the base of the game
- Wooden block needed to be secured to the base of the game
- Two screws used for attachment through the bottom of the base
- Problem: not enough security
Construction

- To provide more security, two pieces of 2x4 wooden boards were used.
- Wooden boards were inserted between the sides of the base and the wooden block.
- Wooden boards were screwed in multiple places.
Construction

- Wooden board attachment proved to work
- Added security was provided: wooden block no longer wobbled
- Next part of construction:
  - Shaft length lathed down
  - Too long, making the wheel be too far from the base of the game -> not appealing
Construction

- Overall major parts of construction are completed
- Press fitting all components
PCB Boards

- Circuit Works
  - Functions on proto board with using the power supply as the main power source
  - PCB Boards designed and approved by Bill
  - Order placed on Monday, expected delivery on Thursday
Power

- Voltage regulators added to protoboard to see if the circuit still worked when hooked up to batteries
  - Motor needs two 9V batteries
  - When wheel is spinning, it uses 40 mA
  - When the motor starts to spin the wheel it uses 200 mA
  - Each battery can provide 500 mA
Power

- According to the graph provided by Duracell, the battery will be able to provide 50 mA continuously for 10 hours.
- The function module, SP03, motion sensor, and microcontroller each require a 9V battery with a positive 5V regulator.
Future Work

- Figure out the function module and try to receive an output
- Attach LEDs to game
- Find and attach PCB board to electrical safe box
- Attach motion sensor to side of base and ensure the range of motion to not be too large
- Attach battery holders in a place so as staff members can change batteries with ease
- Attach speaker from SP03 to base
- Attach clicker apparatus to base
- Finish and record questions and answers
- Apply stickers and other visual enhancements to base
Total Work

- Yavi: 15
- Meghan: 12
- Kristen: 12