THE TEAM

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Introduction
Updates
Design Decisions
Obstacles
Questions
Updates

- Ran Surface Tests
- Ran Electromagnet Tests
- Ran Reed Switch Tests
- Finalized App Logic
- Created Circuit Diagram (Wiring Documentation)
- Began Work With Buttons and LED Display
- Began Work on Bluetooth
- Began Work on Server
- Designed Table Structure
- Completed XY-Table
Design Decisions – Surface Test

- First Design

Introduction Updates Design Decisions Obstacles Questions

5/9/2016
Design Decisions – Surface Test

- Second Design
Design Decisions – Table

- Table design
  - Wood/Metal Design
  - Encapsulates all Electronics
  - Hidden Display and Buttons
• Slight variations in magnetic field strength, reed switch sensing area
  • Testing done on reed switches

• Pieces moving each other due to polarity of magnets in pieces
  • Testing done on piece movement
  • https://www.youtube.com/watch?v=cLDGfcFejiw
Obstacles Overcome – Software

- Artificial Intelligence depth of search
  - StockFish (Open Source Chess Engine)
- Bluetooth
  - Sends Moves to Phone Test App
- Application Development
  - Logic Complete
  - Connects to Multiplayer Server
- Voice Control
  - Tested on laptop and is working well
Obstacles Overcome – Hardware

- Wiring Diagram
Remaining Obstacles

- Motor Vibration
- Specialty moves on Raspberry Pi
- Bluetooth communication from the App
- Voice Control on the Raspberry Pi
Questions?