Problem/Solution

- Disabled Chess Player
- Lonely Chess Player
- Historic Game
- Automated Chess Board with Artificial Intelligence
- Chess Piece Movement Through App and Voice
- Aesthetically Pleasing Chess Board
Speed Comparison

Introduction

Design

Achievements

Conclusion

5/9/2016
Design Decisions – Table

Introduction

Design

Achievements

Conclusion
Sensor Array and Board Surface

Introduction
Design
Achievements
Conclusion
Electronics

Introduction

Design

Achievements

Conclusion

5/9/2016

8/19
Obstacles Overcome – Piece Movement
Obstacles Overcome – Electrical Noise

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Software (Laymen's)

Introduction

Design

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Chess Game

Chess Board

Chess Table

I/O

Chess Engine

Game Mode

Chess Board

Pawn

Rook

Knight

Bishop

Queen

King

Chess Piece

XY-Table

Magnet

Motors

Reed Board

Python Chess

StockFish

Bluetooth

Microphones

LED Matrix

Buttons
Obstacles Overcome – Software

- **Bluetooth**
  - Sends/Receives Moves to/from iPhone App
- **Application Development**
  - Proof of concept is completed
- **Voice Control**
  - Implemented in main code
AI Working

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Achievements

Conclusion
Bluetooth Working

Introduction

Design

Achievements

Conclusion
Voice Control Working

Introduction

Design

Achievements

Conclusion
Summing it all up!

- We still have some things to work on....
- Order extras! We break a lot of stuff.
- Integration takes time, plan ahead
- Communication between programming languages (35+)
- Aesthetically pleasing is not always practical (but worth it)
- Lauren likes to be left alone
Thank You

- Google
- Jim Kortman
- Phil Jasperse
- Professor Michmerhuizen
- Professor Kim
Questions?