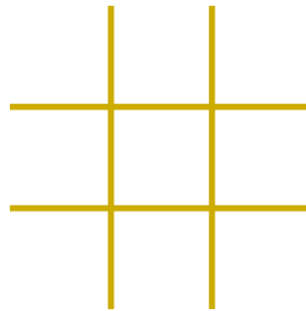


# Team Terminator

A Machine Learning Game Playing Robot



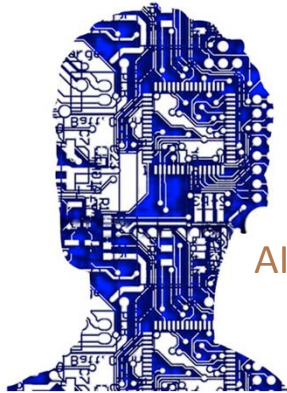
Cory Bethrant & Maxime Keita  
Advisor: Dr. Kim  
Graduate Advisor: Chidi Ekeocha

WHY

To Demonstrate The Capabilities of Tenserflow and OpenCV



# Goals of Solution



AI Should Win

AI is Required to be Know When Opponents Turn is Over

AI is Required to Keep Track of Game State

Robot is Required to Move Pieces Independently



# Design #1: Mounted Rail System w/ Separate Camera

## Positives

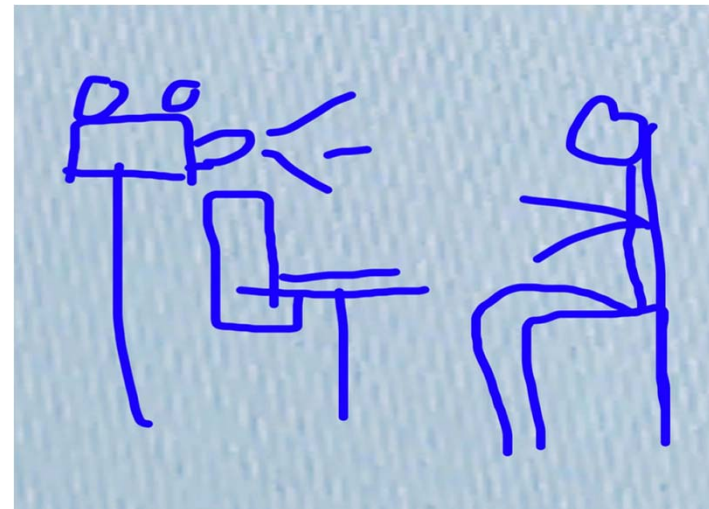
Possible with LEGOs/ Easier to Build

Stays Connected To Desk

## Negatives

Separate Camera Results in Variable Angles

Rail Systems Requires Many Movements to End Turn



# Design #2: Standalone Claw Crane w/ Attached Camera

## Positives

Fast, Direct Movements

Does Not Require Mounting Mechanism

## Negatives

Standalone Claw Crane Results in Variable Angles

More Challenge/Expense to Build



# Final Design: Mounted Claw Crane w/ Attached Camera

## Positives

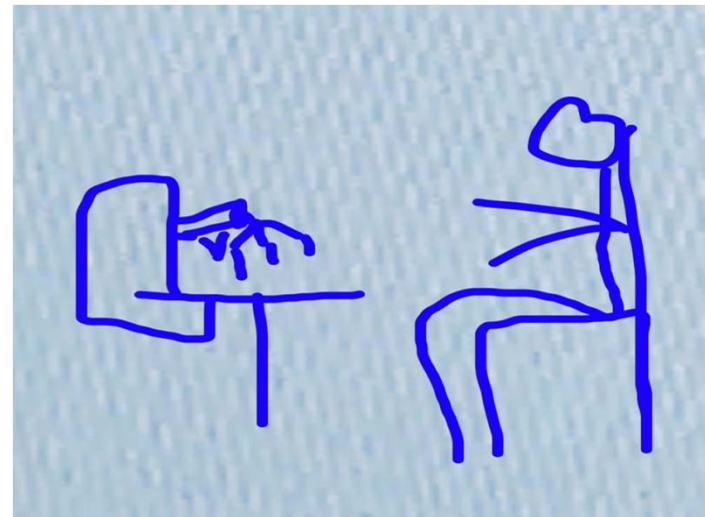
Fast, Direct Movements

No Variable Angles

Everything is in Single Enclosure

## Negatives

More Challenge/Expense to Build



# Acknowledgment

**Principal Investigator** Dr. Charles Kim, PhD

**Graduate Advisor** Chidi Ekeocha, PhD

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