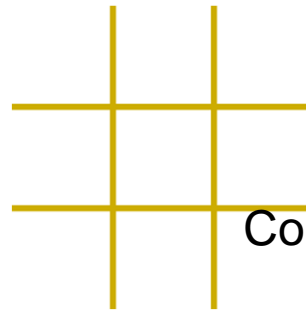# Team Terminator

A Machine Learning Game Playing Robot
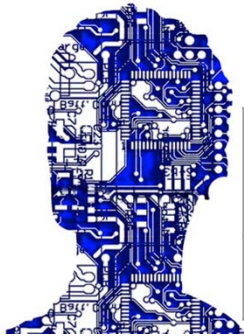
4th Progress Report

Cory Bethrant & Maxime Keita

April 3rd, 2018

Faculty Advisor: Dr. Kim
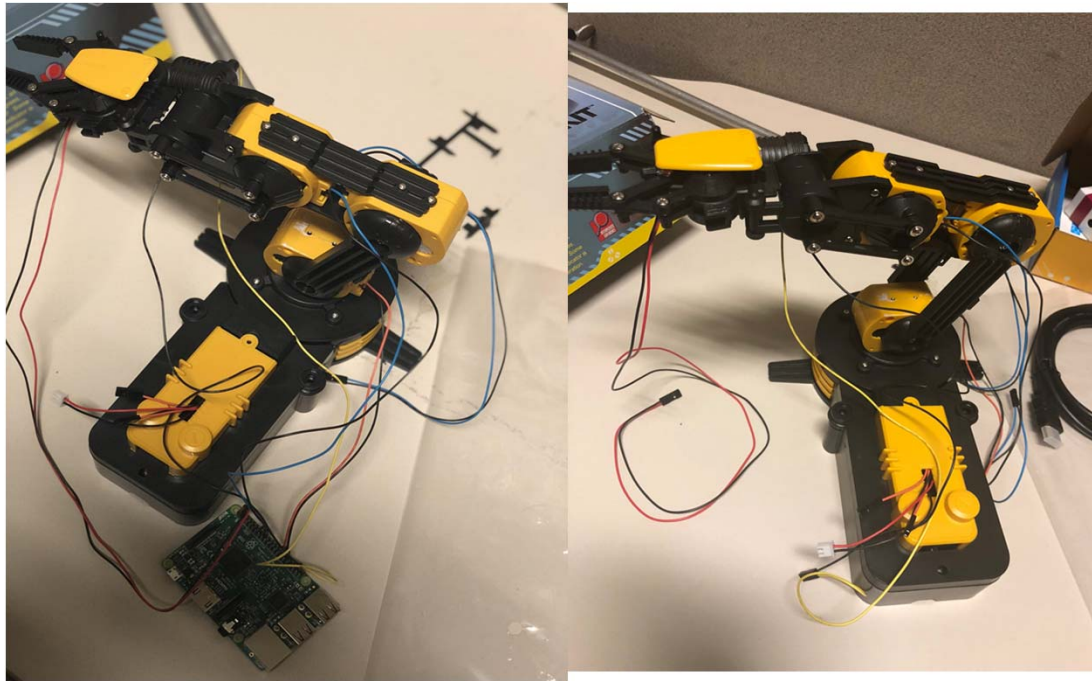Graduate Advisor: Chidi Ekeocha

Milestone Progress

Arm Construction	Tic-Tac-Toe AI	OpenCV Detection	Arduino/Raspberry Pi Communication
Done	Done	On Going	On Going

Achievement Vs. Expectation

Expected to be fully complete.
Still on schedule to be complete in time for Final Presentation

Current Progress

Activity Summary

Lowlights:

- Mechanical Engineer Student a little behind for the CAD design of the Tic Tac Toe Grid
- Still have to make event interface for AI's communication with the physical world.

Highlights

- Arm has been constructed
- AI has been tested to works
- Learning to be familiar with Raspberry Pi

```python
def ArmMove(Duration, ArmCmd):

    #Start Movement
    Arm.ctrl_transfer(0x40,6,0x100,0,ArmCmd,1000)
    time.sleep(Duration)

    #Stop Movement
    ArmCmd=[0,0,ArmLight]
    Arm.ctrl_transfer(0x40,6,0x100,0,ArmCmd,1000)

#Establish a connection with the wiimote
print 'Connected to arm successfully.'
print ' '
print 'Press 1 and 2 on the wiimote at the same time.'
#Connect to mote and if it doesn't connect then it tells us and tries again
time.sleep(3)
print ''
print 'Establishing Connection... 5'
time.sleep(1)
print 'Establishing Connection... 4'
time.sleep(1)
print 'Establishing Connection... 3'
Wii = None
while (Wii==None):
    try:
        Wii = cwiid.Wiimote()
    except RuntimeError:
        print 'Error connecting to the wiimote, press 1 and 2.'
    print 'Establishing Connection... 2'
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Looking for git in: C:\Program Files\Git\cmd\git.exe
Looking for git in: C:\Program Files (x86)\Git\cmd\git.exe

Risks/Mitigation

Risks

- Camera original installation place might be a problem when moving the arm.

Mitigation

- Determined not to be the case as long as it is attached properly.

Steps To Be Completed

- Completion of Raspberry Pi Integration

- Completion of OpenCV event listener

- Linking Together All Processes

- Testing