

2/4

Sensors:

✓ → encoders

✓ → limelight (Network Tables)

→ NAVX (I2C or SPI) ^{I2C → CoProcessor}
SPI - int?
- auto balancing

→ BNO055 (I2C) → CoProcessor → network tables

→ IR Distance Sensor (I2C)

✓ → Pressure Sensor
- pneumatic pressure control

Inputs:

✓ Joystick 1: } Drive Station

□ Joystick 2:

○ Camera

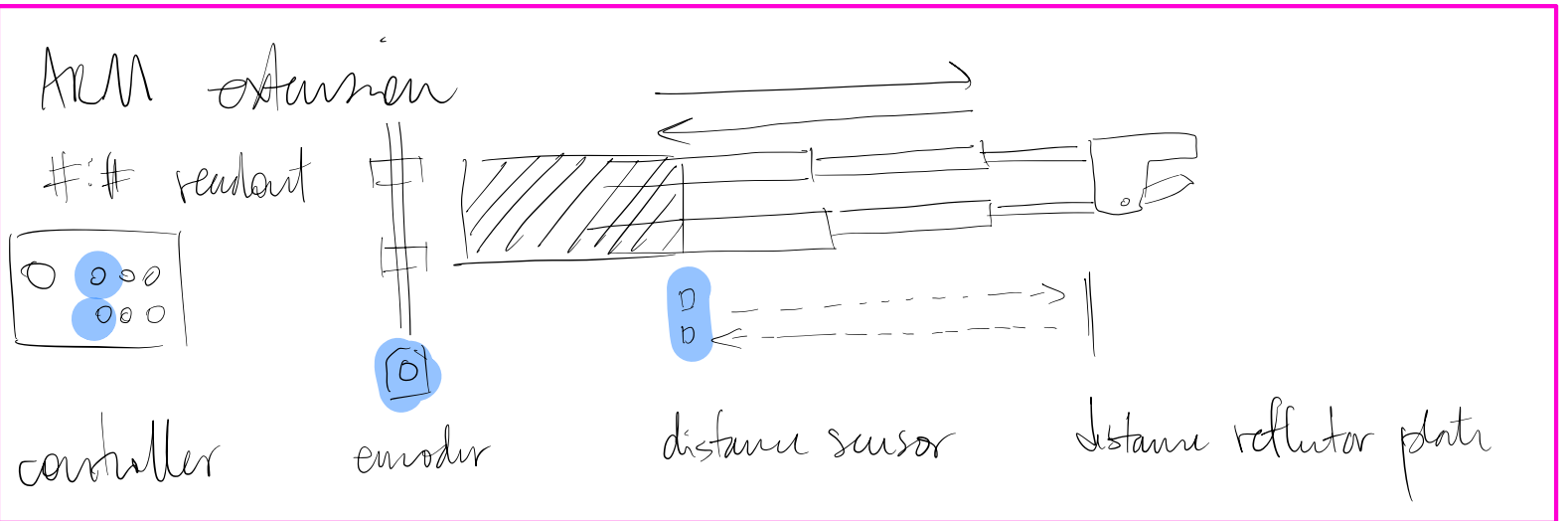
Outputs:

- Drive Station

- Smart Dashboard

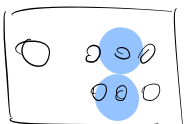
- Widgets

- Netnode Tables



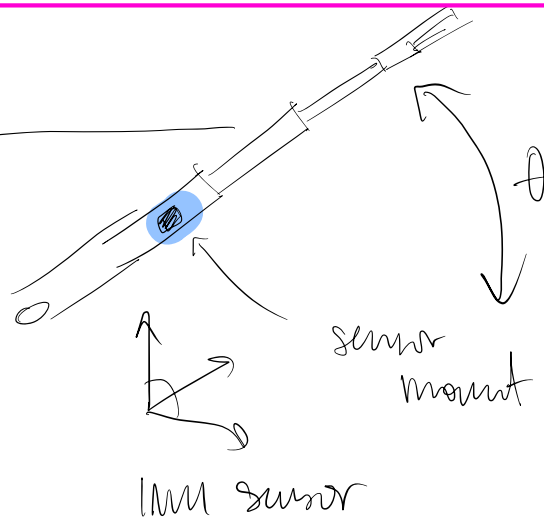
ARM angles

#:# redundant

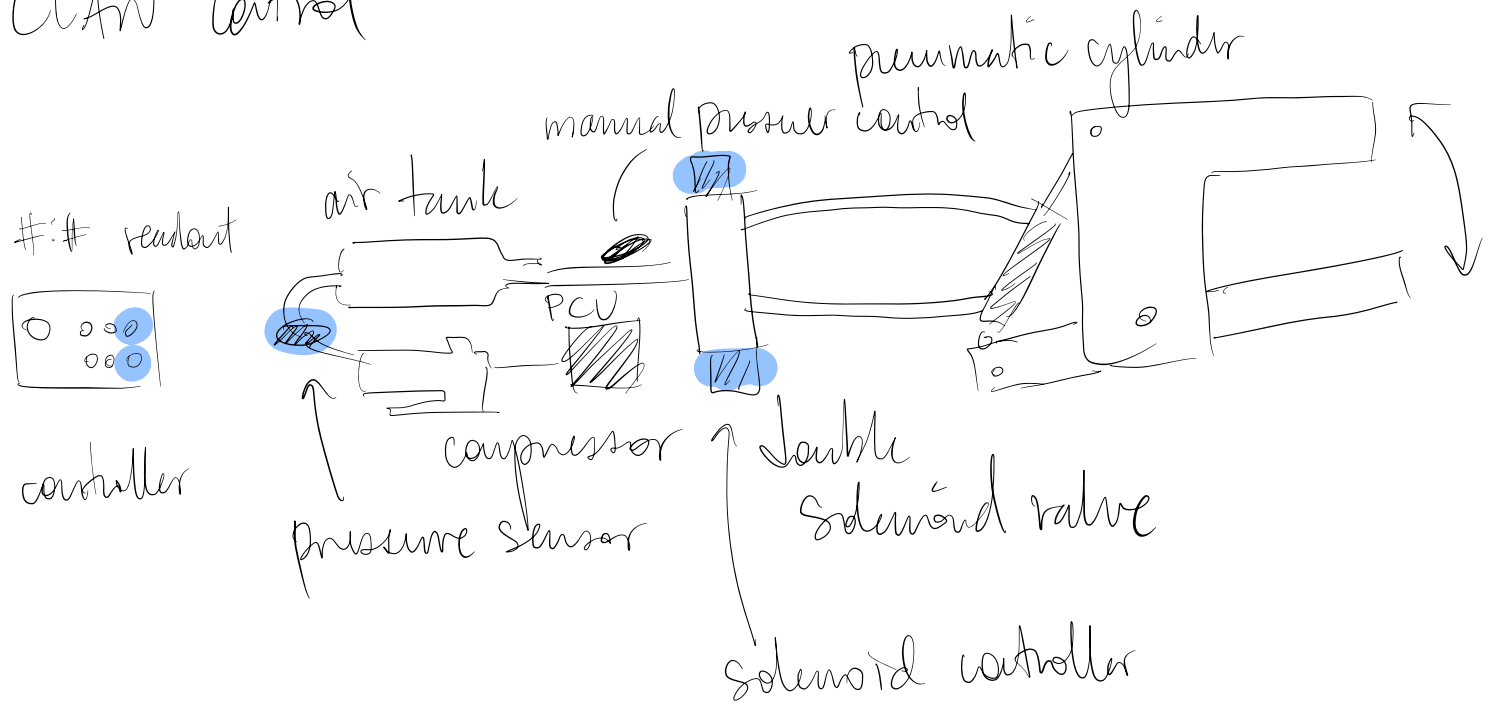


controller

encoder

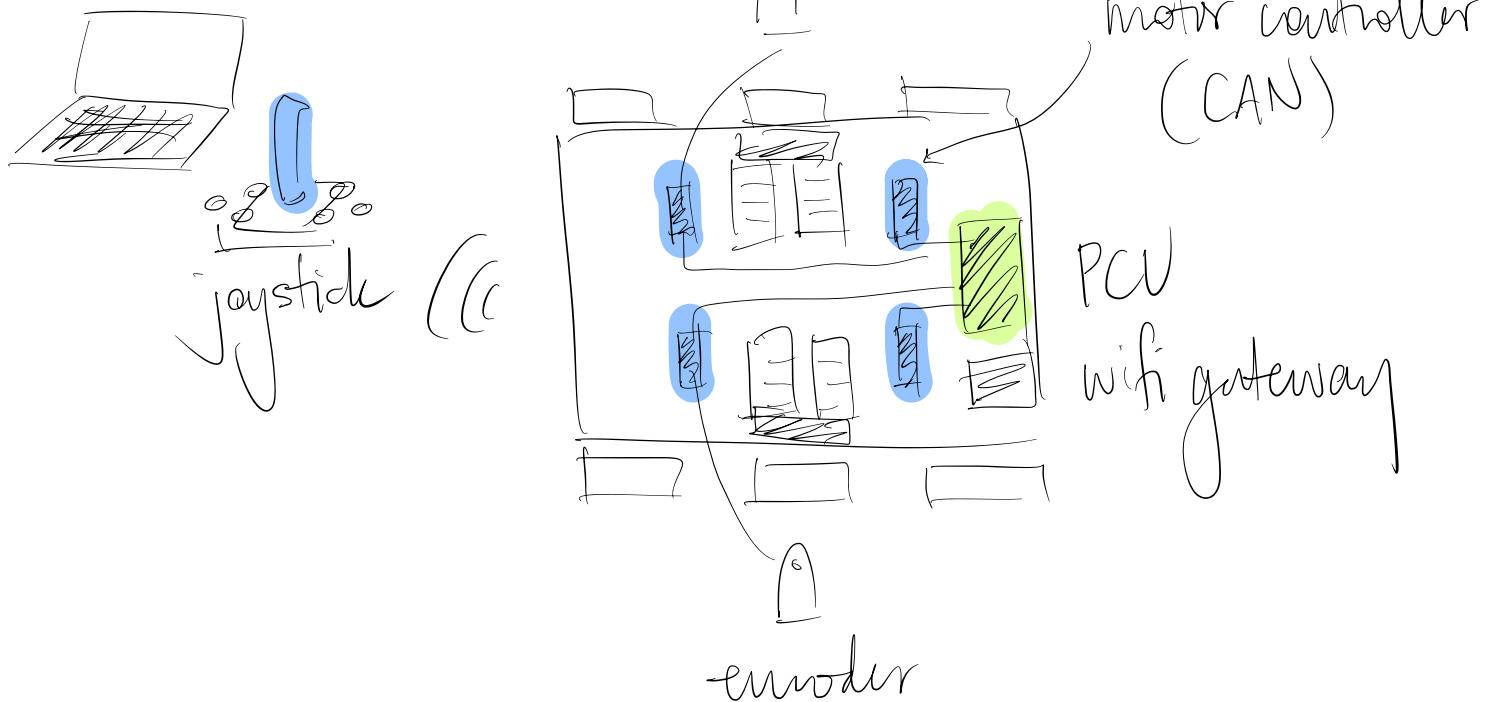


CAN control



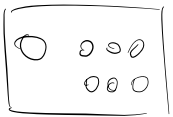
Drive Train

Drive Station

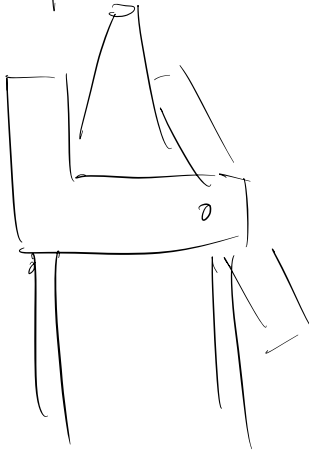
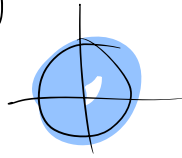


Target Alignment

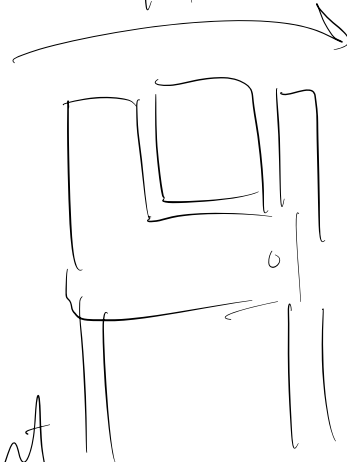
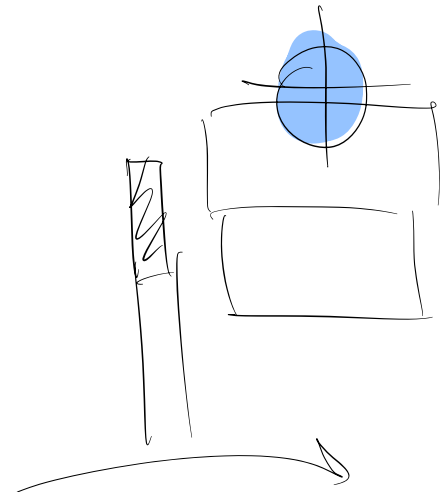
#:# readout



controller

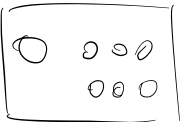


linelight

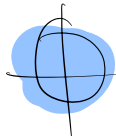
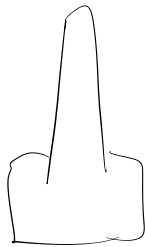


Pick Up Alignment (NTH)

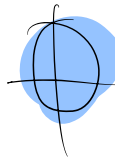
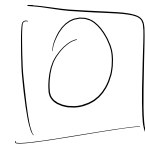
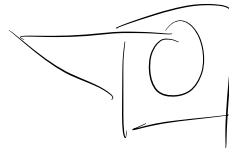
#:# readout



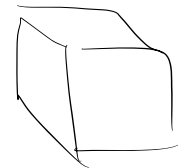
controller



linelight

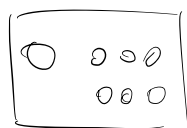


camera
+
open cv

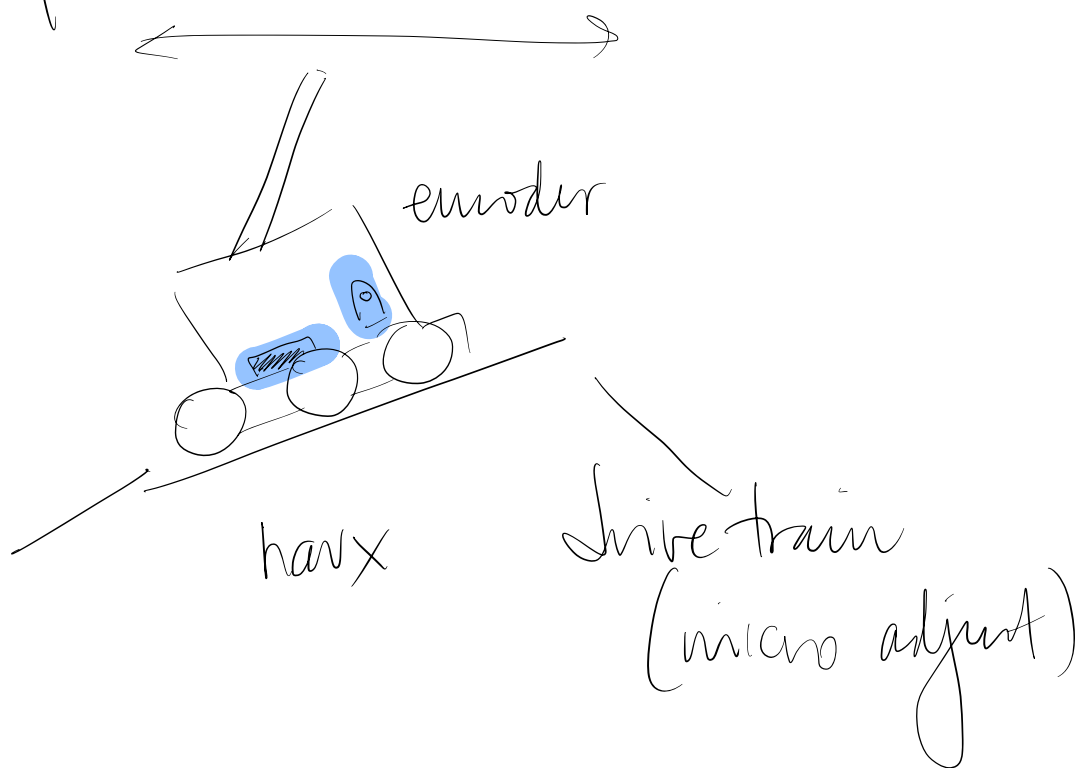


Auto balancing

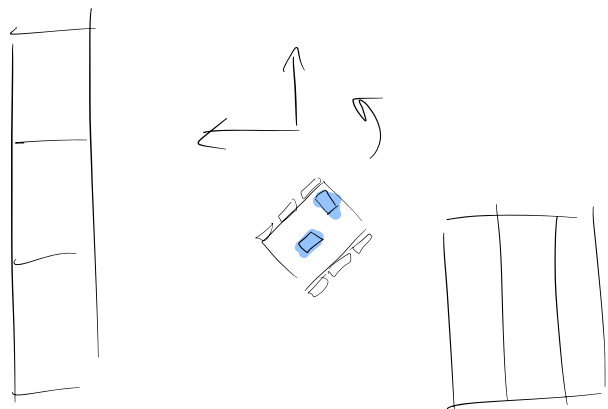
#:# readout



controller



Robot Field Positioning



shive train harx line light

Open Arms:

Functions:

- Arm Extension
- Arm Angle
- Pick Up Alignment
- Auto Balancing
- Robot Hold Positioning
- Autonomous Mode Dev

Output Control:

- Smart Dashboard Widgets & readout
- Button Control & Mgmt

Hardware / Software:

- CoProcessor (s)
- Network Table Integration (Co Processor)
- DC sensor feeds
- Code Restructuring?
- new camera