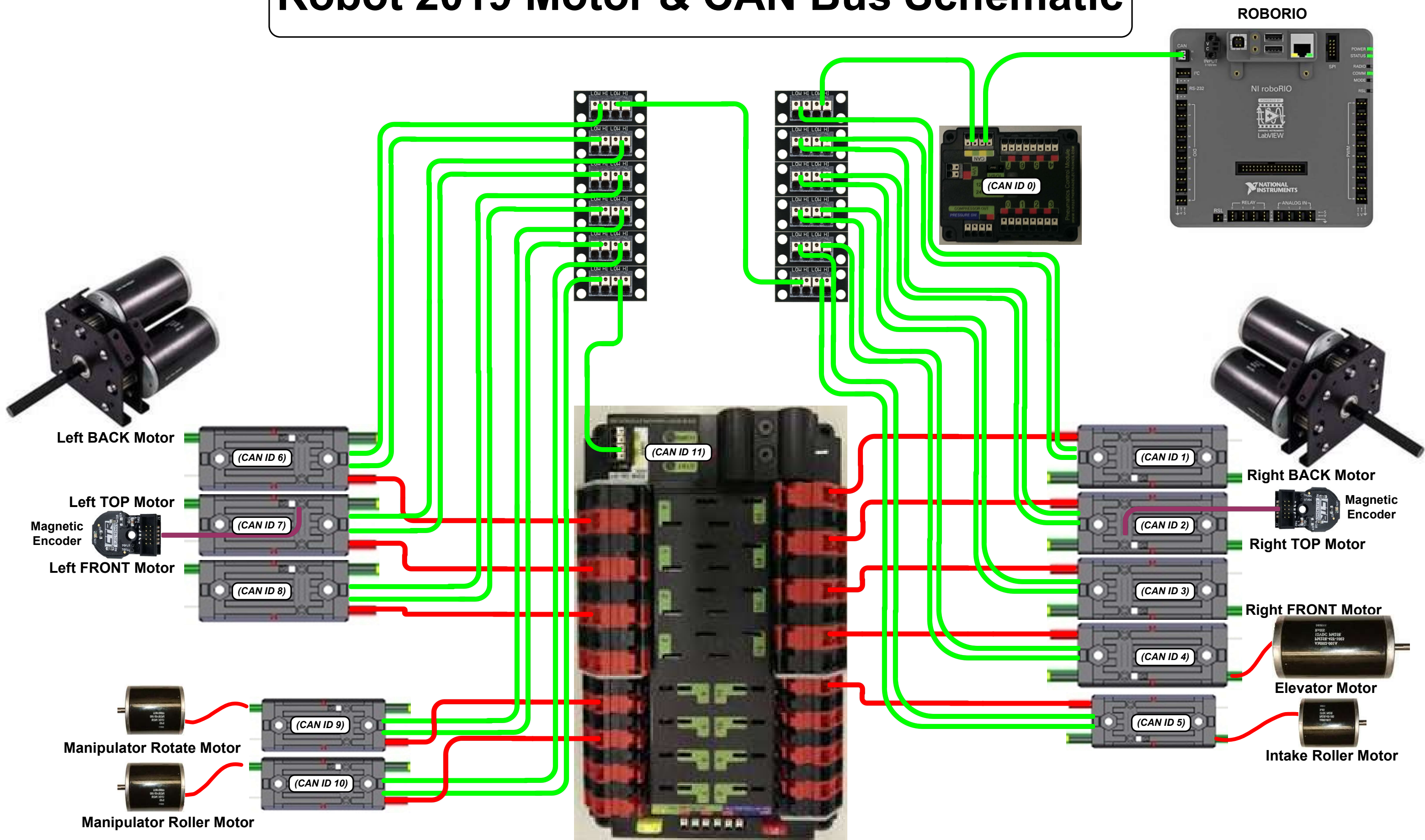
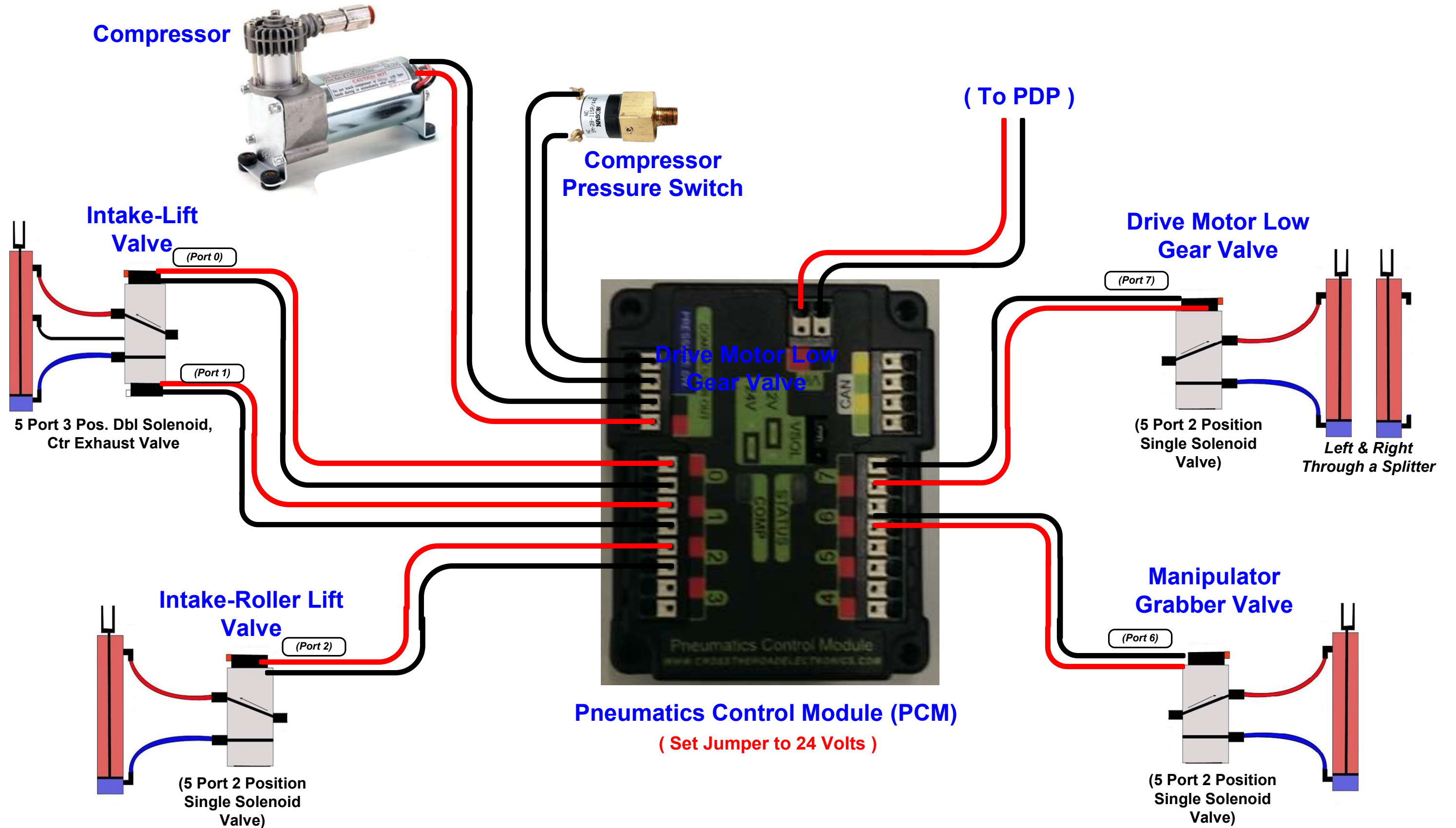


# Robot 2019 Motor & CAN Bus Schematic



# Robot 2019 Pneumatics Schematic





# Robot 2019 Sensor and Switch Schematic

## Intake Subsystem

Lift Raised  
Magnetic Reed Switch

Lift Middle Position  
Magnetic Reed Switch

Lift Lowered  
Magnetic Reed Switch



DIO - 2



DIO - 1



DIO - 0

Roller Raised  
Magnetic Reed Switch



DIO - 4

Roller Lowered  
Magnetic Reed Switch



DIO - 3



DIO - 5

Hatch Captured  
Micro Switch



4-Wire JST  
Switch  
Connector



3-Wire  
Digital Input  
Connector

Elev Top 1  
Magnetic  
Reed Switch



DIO - 6

Elev Top 2  
Magnetic  
Reed Switch



DIO - 7

Elev Bottom 1  
Magnetic Reed  
Switch



DIO - 8

Elev Bottom 2  
Magnetic Reed  
Switch



DIO - 9

## Elev. Subsystem

## Manipulator Subsystem

Arm Forward  
Magnetic Reed Switch



DIO - 10

Arm Rear  
Magnetic Reed Switch



DIO - 11



DIO - 13

Wall Contact  
Detected  
Micro Switch



DIO - 12

Hatch Detected  
Micro Switch



DIO - 19

Hatch Gripper Closed  
Magnetic Reed Switch



DIO - 18

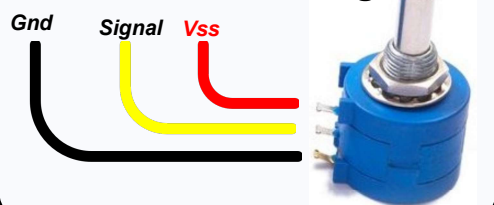
Cargo Detected  
Micro Switch



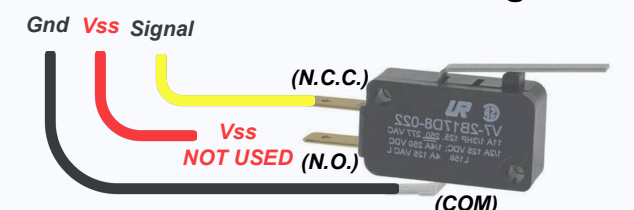
Arm Position  
10 Turn Pot

AD - 0

### RoboRio Pot Wiring



### RoboRio Switch Wiring



(If wire becomes disconnected - fails to triggered condition. Internal pull-up resistor drives line to true.)