2015 bot sequence of ops.

Bot Empty, no ball no DIO4, shooter down DIO5, no ball in shooter position DIO6, Arm IN.

Operator drops arm, roller motor runs to suck in ball +1.0, automatically. Arm controlled by button 1, and toggles arm position, press once arm drops, press again arm raises.

Ball detected by DIO4

Dwell 50ms,

Arm In

\*ball is now on bot, secured, DIO6 in shoot position may or may not be tripped.

Driver presses shoot,

Dwell 250ms, make sure driver just didn’t accidently hit button, but press and hold.

Arm lowers (if UP)

Waits for 1500ms for arm to move

Checks DIO6 and if ball in shoot position is tripped, this signal has a 650ms dwell on time, to insure the ball settles.

Fires shooter solenoids (2)

Dwell 750ms

Turns off shooter solenoids

Waits for shooter to return DIO5

Automatically Raises arm

Back at empty.

\* The automatic raise of arm when the ball is picked up and after the shooter fires can be overridden by driver to not make that movement. Button 5

With a ball in and the arm up, driver can spit ball out, with button 2 motor is -0.75

With no ball and arm up, co-driver can swallow button 2 roller speed 1.0

Underglow turns on when psi is >60, psi is on dashboard too.

Analog sensor needs to be between 0.5 and 4.5 to be valid,

Psi=sensor value \* 37.5 – 18.75