Function: Turn(direction setpoint)

Obtain Direction Setpoint

Obtain Robot Direction from Infrared Sensors

Calculate Deviation

Output voltage to direction control motor of the correct polarity, proportional to deviation.

Obtain Robot Direction from Infrared Sensors

Calculate Deviation

End loop if deviation is below allowance.

End Process

Function: Jump(compression setpoint)

Obtain Spring Compression Setpoint

Obtain spring compression value from the encoder

Turn motor off when compression reaches the setpoint value.

Output voltage to linear actuator to release latch and jump.

Turn off linear actuator motor and reverse ball screw direction to reset.

End Process