

## Pseudocode (Rack and Pinion with Servo Motor – Vertical Sliding Mechanism with Limit Switches )

BEGIN

SETUP:

- Define LimitS\_1 as limit switch 1
- Define LimitS\_2 as limit switch 2
- Configure both switches as INPUT with pull-up
- Initialize motor\_dir = 0.5 (forward)
- Print "Continuous Servo demo!"

MAIN LOOP (forever):

- Read limit1 value
- Read limit2 value
- Print limit1 and limit2 values

IF limit1 is triggered:

- Stop motor (set throttle  $\approx$  -0.1)
- Set motor\_dir = 0.5 (forward direction)
- Run motor forward

ELSE IF limit2 is triggered:

- Stop motor (set throttle  $\approx$  -0.1)
- Set motor\_dir = -0.5 (reverse direction)
- Run motor reverse

ELSE:

- Run motor in current motor\_dir

Wait 0.2 seconds

END LOOP