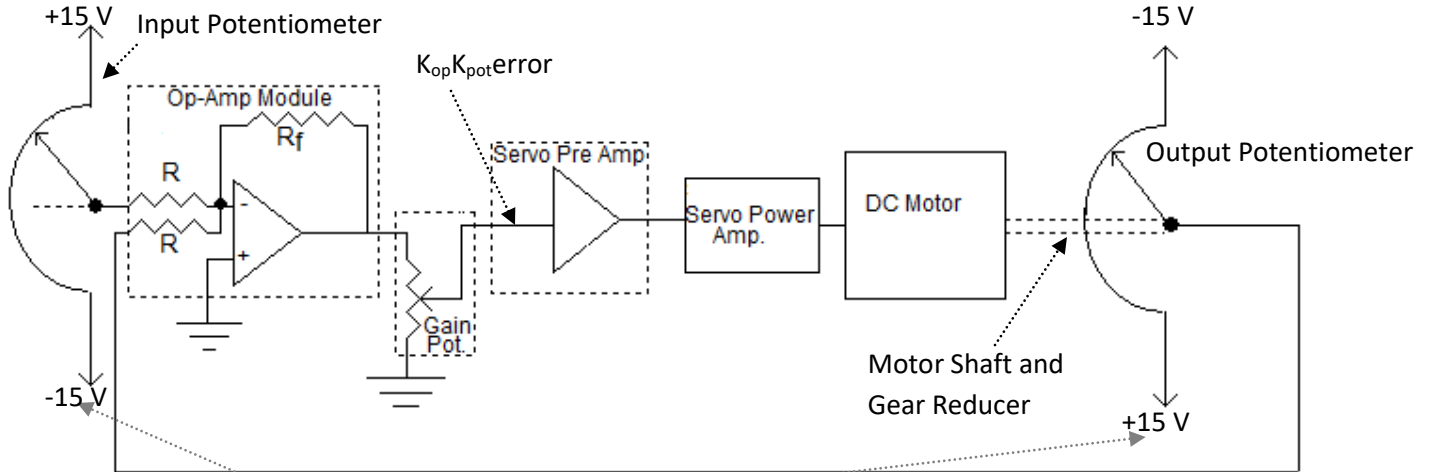


A Simple Position Control System (Servo System)

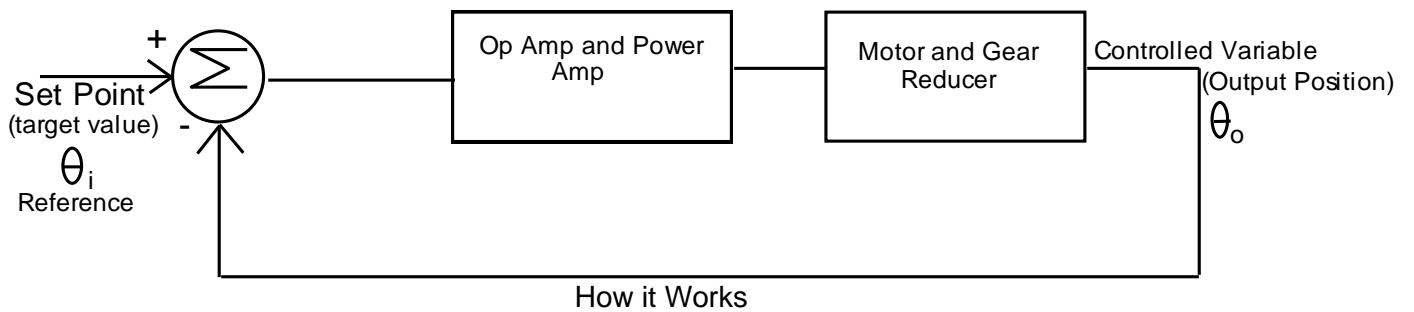
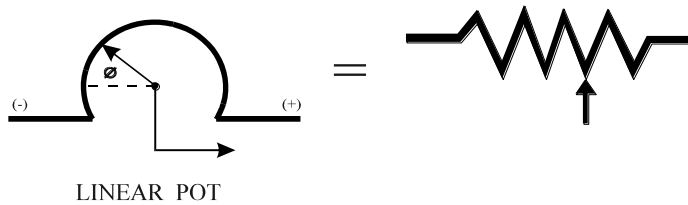


Notice the reversal of polarities of the potentiometer power supply

θ_i is the reference or target position or set point

θ_o is the output or controlled variable position

SERVO MECHANISM (POSITION CONTROL)



The error which is the voltage difference between the reference and the actual position produces a voltage which drives the motor in a direction that the coupled output potentiometer produces a voltage resulting in a reduced error. When the error is zero, there is no voltage to drive the motor.