



actuator definition

ServoMotor

Inputs

dangle: real

Outputs

T: real

Local Variables

Tm: real, Vemf: real, Tf: real

V: real, i: real

theta: real, av: real, e: real

Constants

b: real, Ke: real, Kt: real

R: real, L: real

Kp: real, Ki: real, Kd: real

Equations

av==derivative(theta)

Tm==Kt*i

Vemf==Ke*av

Tf==b*av

T==Tm-Tf

V==i*R+L*derivative(i)+Vemf

e==dangle-theta

V==Kp*e+Ki*integral(e, 0, t)+Kd*derivative(e)



actuator definition

Comms

Inputs

inp: string

Outputs

oup: string

Equations

oup==inp



actuator definition

Nozzle

Inputs

P: real

Outputs

F: real

Constants

A: real

Equations

P==F/A