

### Assignment #3

The figure below shows two robots. You can control the velocity of both robots. The objective is to drive the robots towards each other. Write the equations describing the closed loop dynamics in this case.

Submit the printout or hand written document describing the state space form of these equations.

$x_1$

$$dx_1/dt = u_1$$

$$dx_2/dt = u_2$$

Also write a python/matlab program to simulate rendezvous of these robots starting from any initial position. Upload the response on Academy.