

Arun Kumar
ME 449
Final Project

Controller Type

Feedforward-Plus-PI controller

Controller Gains

$K_p = 5.5$

$K_i = 0.2$

Cube initial and final configurations

$T_{sc_i} = \begin{bmatrix} 1, 0, 0, 1, \\ 0, 1, 0, 0, \\ 0, 0, 1, 0.025, \\ 0, 0, 0, 1 \end{bmatrix}$

$T_{sc_f} = \begin{bmatrix} 0, 1, 0, 0, \\ -1, 0, 0, -1, \\ 0, 0, 1, 0.025, \\ 0, 0, 0, 1 \end{bmatrix}$

Actual Initial Robot Configuration

$config_a = [0.6, -0.4159, 0, 0, 0, 0, 3\pi/2, 0, 0, 0, 0, 0]$

Reference Initial Robot Configuration

$config_r = [0, -0.4159, 0.2, 0, 0, 0, 3\pi/2, 0, 0, 0, 0, 0]$