Best:

For this trajectory generation a PI controller was used where Kp was 2 and Ki was .00011, the plot showing the trajectory as it goes to zero is shown below. This the block was also at the default configurations, the robot began at Phi = 1, X=0 and y=.3. The joint limits were also set to 10000

Overshoot:

For this trajectory generation a PI controller was used where Kp was 2 and Ki was 300, the plot showing the trajectory as it goes to infinity is shown below. This the block was also at the default configurations, the robot began at Phi = 1, X=0 and y=.3. The joint limits were also set to 10000

New Task:

For this trajectory generation a PI controller was used where Kp was 2 and Ki was 300, the plot showing the trajectory as it goes to zero is shown below. For this the block was initially at the default configuration and the robot carried it to (1.5, -.5), the robot began at Phi = 1, X=0 and y=.3. The joint limits were also set to 10000