$$\vec{x}_i(t_0) \xrightarrow{\text{Input}} \theta_1 = 0$$

$$\theta_{i+1}(t_0) = x_i(t_0) + \theta_1(t_0)$$

$$\theta_i(t_0) \longrightarrow \dot{\theta}_i(t_0)$$

$$\dot{x}_i(t_0) \xrightarrow{\text{Input}} \dot{\theta}_i(t_0)$$