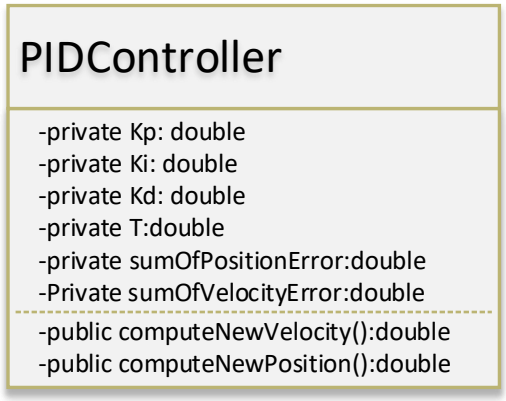

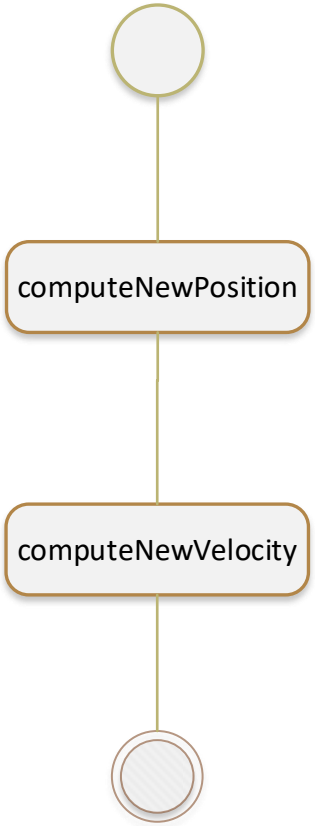

$$v_{cmd} = K_p \cdot e_{position} + K_i \cdot \sum_{t=0}^{1} e_{position}(t) + \frac{K_d}{T} \cdot e_{position}$$

$$e_{position} = p_{targetSetPoint} - p_{currentPosition}$$

$$v_{new} = K_p \cdot e_{velocity} + K_i \cdot \sum_{t=0}^{1} e_{velocity}(t) + \frac{K_d}{T} \cdot e_{velocity}$$

$$e_{velocity} = v_{cmd} - v_{actual}$$

$$if \quad (v_{new} > 2000) \quad \{ v_{new} = 2000 \}$$