1 Environment

This system models the environment of the motorcycle is riding in.

$$given : h(d) \tag{1}$$

$$\theta_r = \frac{d}{dd} h(d) \tag{2}$$

$$T_a mb(d) = T_0 - Lh(d) \tag{3}$$

$$P(d) = P_0 \left(1 - \frac{Lh(d)}{T_0}\right)^{\frac{gM}{RL}} \tag{4}$$

$$\rho(d) = \frac{PM}{1000RT} \tag{5}$$