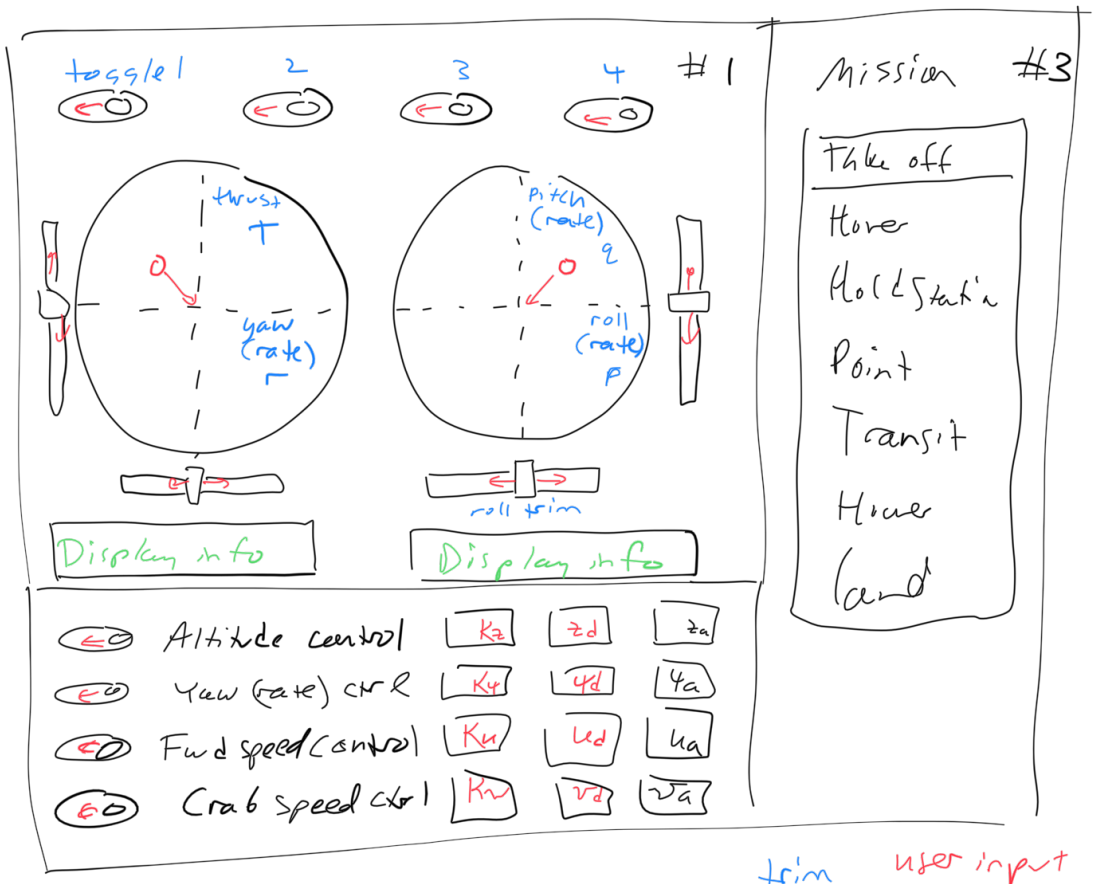
AMAV GUI



$$\dot{x} = u\cos\theta$$
$$\dot{y} = v\cos\phi$$
$$\dot{z} = -T\cos\theta\cos\phi$$
$$\dot{\psi} = r$$
$$\dot{u} = T\sin\theta$$
$$\dot{v} = T\sin\phi$$

trim | user input

$$T = T_0 + \Delta T$$
$$r = r_0 + \Delta r$$
$$p = p_0 + \Delta p$$
$$q = q_0 + \Delta q$$

go to transmitter

let $K_\psi(\psi_d - \psi_a) - r_0 = \Delta r$

from GUI | from ROS (compass)

$$\text{Let } -(T_0 + \Delta T)\cos\theta_a \cos\phi_a = K_z(z_d - z_a)$$

$$\Rightarrow \Delta T = -\frac{K_z(z_d - z_a)}{\cos\theta_a \cos\phi_a}$$