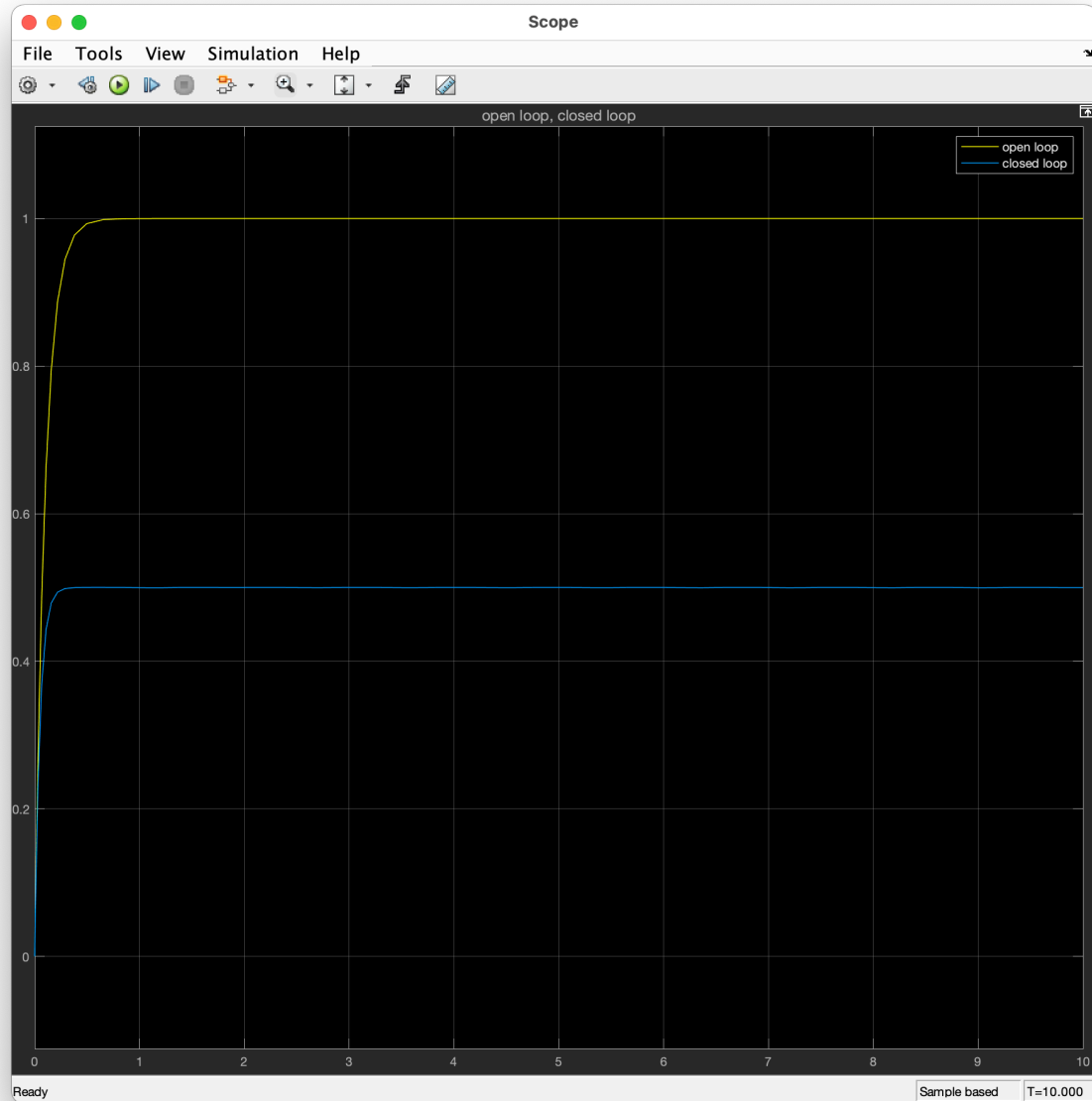


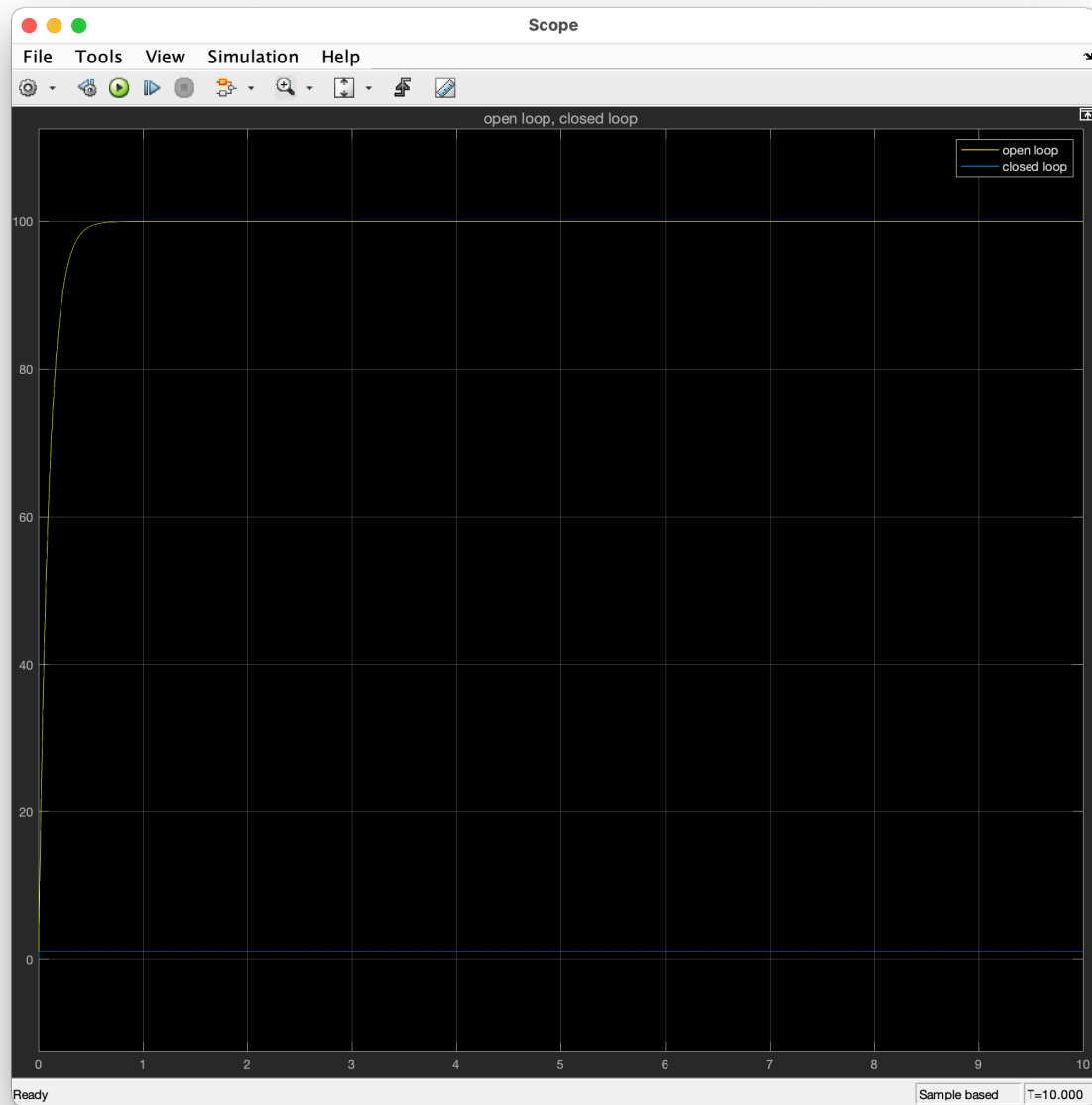
First order lung model

$$K_c = 1, \text{ no disturbance, } V_{in}(s) = \frac{1}{s} \text{ (step input mag 1)}$$



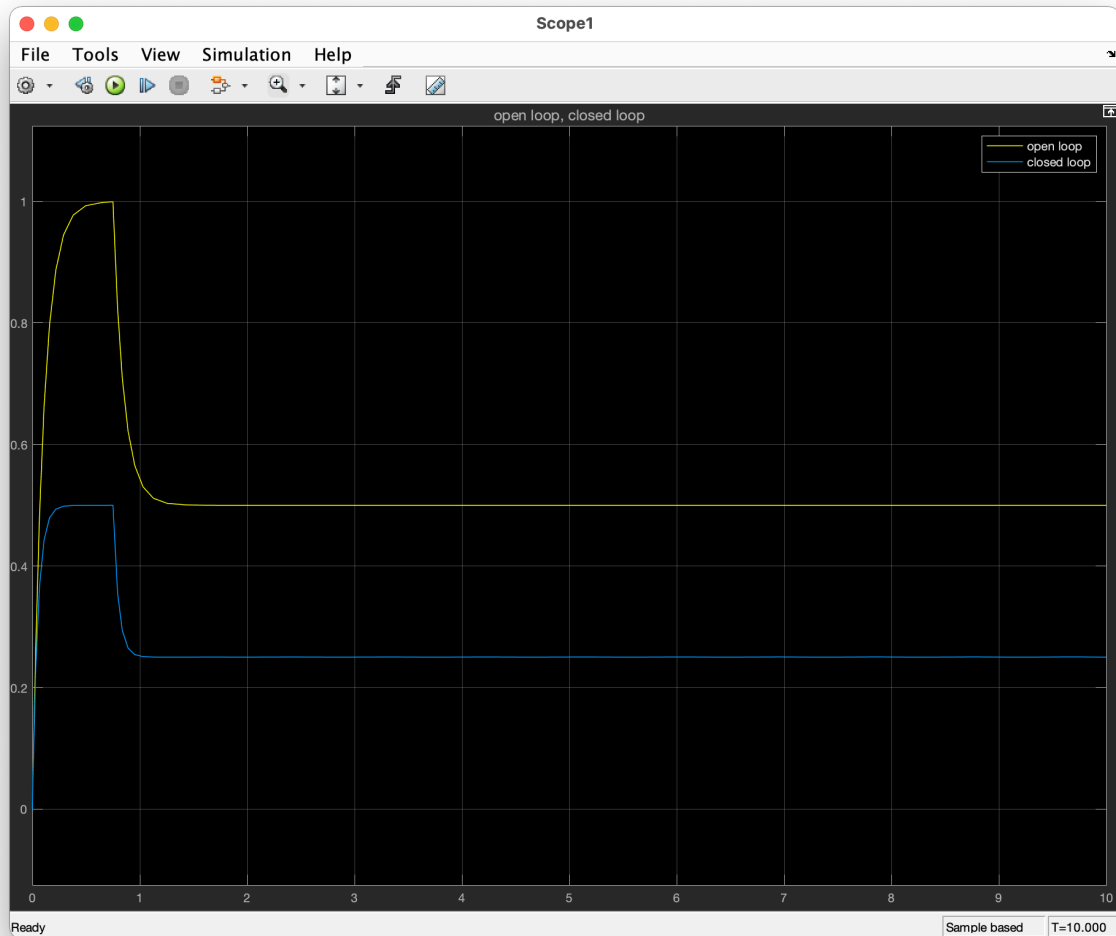
First order lung model

$$K_c = 100, \text{ no disturbance, } V_{in}(s) = \frac{1}{s} \text{ (step input mag 1)}$$



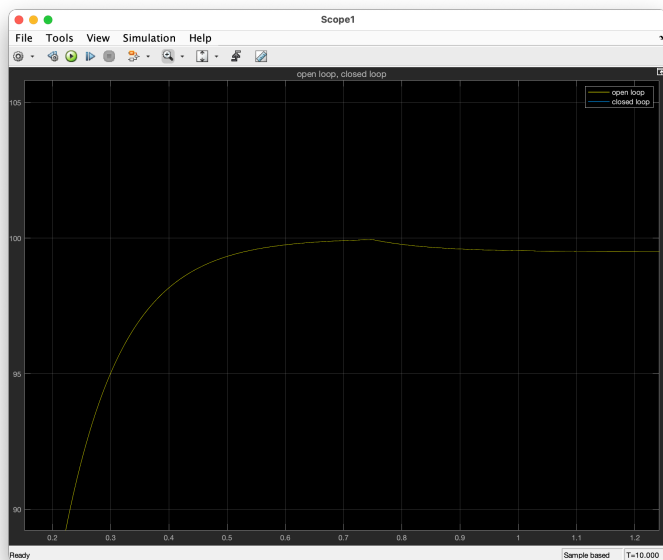
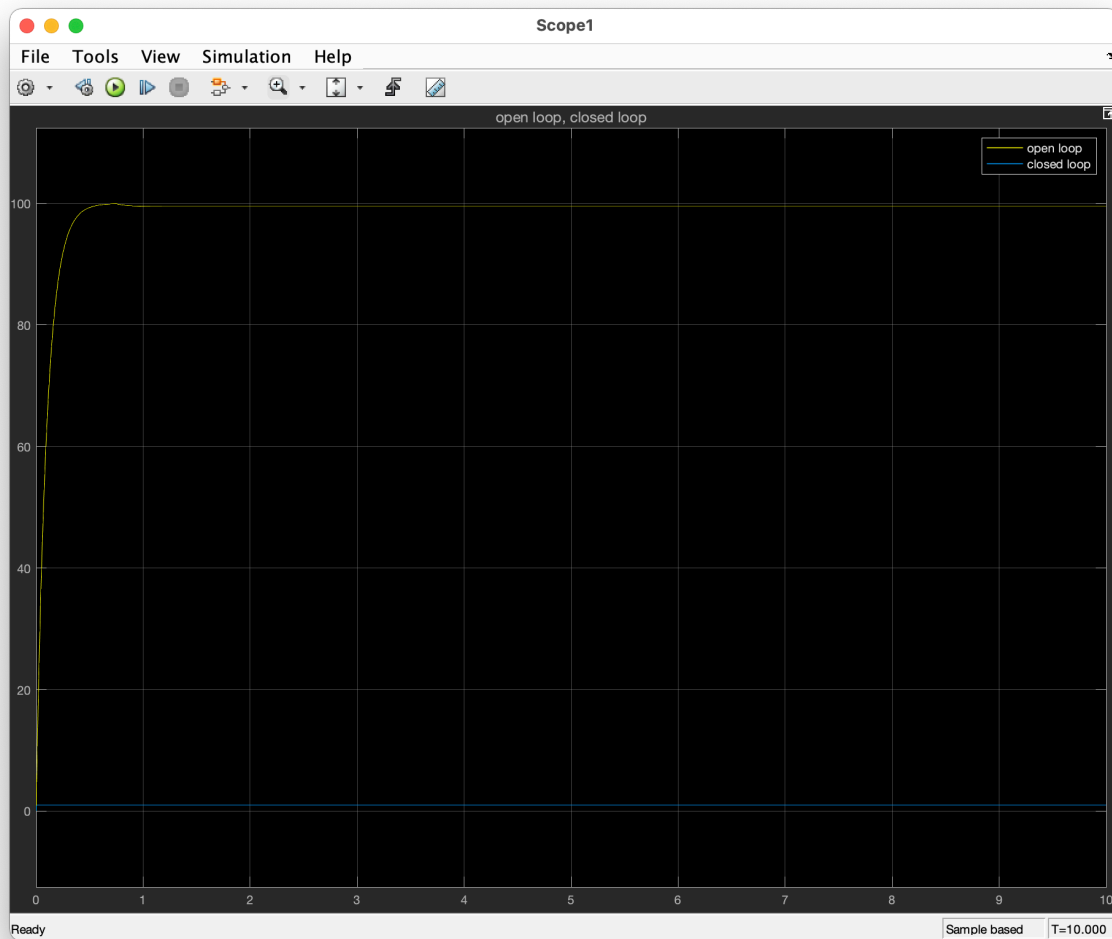
First order lung model

$$K_c = 1, P_d(s) = \frac{-0.5}{s} e^{-s0.75} \text{ (dist of -0.5 mag at 0.75 sec)}, V_{in}(s) = \frac{1}{s} \text{ (step input mag 1)}$$

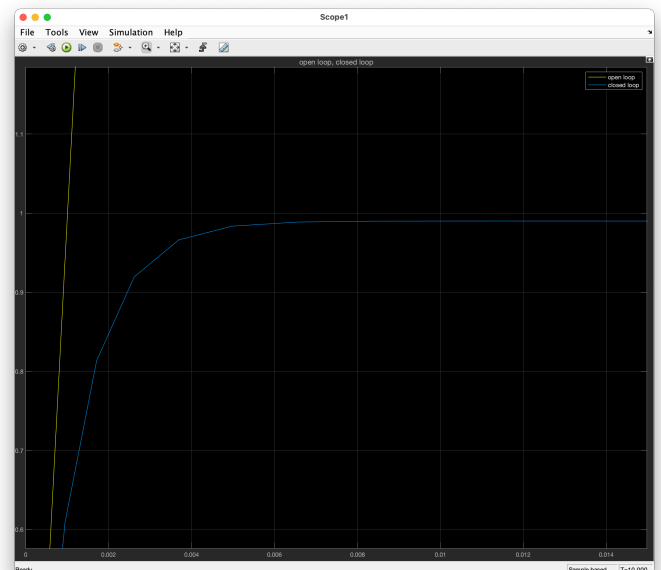


First order lung model

$$K_c = 100, P_d(s) = \frac{-0.5}{s} e^{-s0.75} \text{ (dist of -0.5 mag at 0.75 sec)}, V_{in}(s) = \frac{1}{s} \text{ (step input mag 1)}$$



Zoom in to open-loop system



Zoom in to closed-loop system