$$-K_i = 0.676K_p^2 - 1.75K_p + 0.428 \quad (1)$$
$$K_i = -0.676K_p^2 + 0.878K_p - 0.016 \quad (2)$$

(1)+(2) $\quad 0 = -0.872K_p + .412$

$$\boxed{K_p = 0.472}$$

(2) $\quad K_i = -0.676(0.472)^2 + 0.878(0472) - 0.016$

$$\boxed{K_i = 0.248}$$

Reported is the x, y data from the simulink model, with all noise turned on.

for x-position $\quad \bar{x} = 1.36 \times 10^{-4} \quad \sigma_x = 0.0734$

for y-position $\quad \bar{y} = 2.92 \times 10^{-4} \quad \sigma_y = 0.0734$