

Rumus V2.

* Delta position.

$$\Delta X = X_t - X$$

Dimana: $\Delta X = \text{delta } X$

 $X_t = \text{Target } X$

$$\Delta Y = Y_t - Y$$

$$\Delta Y = \text{delta } Y$$

 $Y_t = \text{target } Y$

~~$$\Delta \theta = \theta_t - \theta$$~~

$$\theta_t = \text{Target } \theta$$

 $\theta_t = \text{Sudut sekarang (radians)}$

* Perhitungan jarak tempuh terbatas.

$$s = \sqrt{\Delta X^2 + \Delta Y^2}$$

* Hitung kecepatan arah sumbu X dan Y (vektor global).

$$V_x = V \times \Delta X / s$$

dimana $V = \text{Speed/kecepatan}$.

$$V_y = V \times \Delta Y / s$$

* Transformasi global ke local.

~~$$V_{x,\text{local}} = (\cos(\theta) \times V_x) + (\sin(\theta) \times V_y)$$~~

$$V_{x,\text{local}} = (\cos(\theta) \times V_x) + (\sin(\theta) \times V_y)$$

$$V_{y,\text{local}} = (-\sin(\theta) \times V_x) + (\cos(\theta) \times V_y)$$

* kecepatan sudut motor.

$$\omega_1 = (2/3 \times V_{x,\text{local}}) + (1/3 \times \omega)$$

$$\omega_2 = (-1/3 \times V_{x,\text{local}}) + (1/\sqrt{3} \times V_{y,\text{local}}) + (1/3 \times \omega)$$

$$\omega_3 = (-1/3 \times V_{x,\text{local}}) + (-1/\sqrt{3} \times V_{y,\text{local}}) + (1/3 \times \omega)$$