$$kw_{(i)} = PW_{(i)} \times \pi$$

$$P = \begin{vmatrix} x \\ Y \\ \theta \end{vmatrix} = \begin{vmatrix} cPos\,X \\ cPos\,Y \\ cPos\,T \end{vmatrix}$$

$$x_t = \frac{Pulse_{(x)}}{Res_{(enc)}} \cdot kw_{(x)}$$

$$y_t = \frac{Pulse_{(y)}}{Res_{(enc)}} \cdot kw_{(Y)}$$

target:

$$P = \begin{vmatrix} x_t \\ Y_t \\ \theta_t \end{vmatrix} = \begin{vmatrix} x \\ Y \\ t \end{vmatrix}$$

$$\theta = \tan^{-1} \frac{y_t}{x_t}$$

$$jarak = \sqrt{(x_t - x)^2 + (y_t - y)^2}$$

$$\beta = 90° - \left[\tan^{-1} \frac{y_t - y}{x_t - x} \right]$$

$$\alpha = \beta - \theta$$

$$jarak = \sqrt{(x_t - x)^2 + (y_t - y)^2}$$

Rumus Final:

$$dx = x_t - x \qquad\qquad x_t = 5$$
$$dy = y_t - y \qquad\qquad x_y = 10.$$

Jarak tempuh:
$$\theta_t = 0.$$

$$S = \sqrt{dx^2 + dy^2}$$

kecepatan sudut:
$$S = 10.$$

$$d\omega = \theta_t - \theta \qquad\qquad \omega 1 = 0.$$

kecepatan linear.
$$\omega 2 = 5.8$$
$$V_x = V \times dx / s \qquad\qquad \omega 3 = -5.8.$$

$$V_y = V \times dy / s$$

Invers kinematics omni 3 wheels

$$V = \begin{vmatrix} \omega 1 \\ \omega 2 \\ \omega 3 \end{vmatrix} = \begin{vmatrix} (0.67 \times V_x) + d\omega \\ (-0.33 \times V_x) + (0.58 \times V_Y) + d\omega \\ (-0.33 \times V_x) + (-0.58 \times V_Y) + d\omega \end{vmatrix}$$