

Read BTAC. Forward kinematics.
Transformasi Local → Global.
Date

Transformasi selera

$$X_t = X + ((\cos(\text{radians}(\theta)) \times X_{\text{local}}) - ((\sin(\text{radians}(\theta)) \times Y_{\text{local}}));$$

$$Y_t = Y + ((\sin(\text{radians}(\theta)) \times X_{\text{local}}) + ((\cos(\text{radians}(\theta)) \times Y_{\text{local}}));$$

~~X_{global}~~ =

Forward kinematics: V1

$$X = R \times ((2/3 \times \text{enc1}) - (1/3 \times \text{enc2}) - (1/3 \times \text{enc3}))$$

$$Y = R \times (1/\sqrt{3} \times \text{enc2}) - (1/\sqrt{3} \times \text{enc3}).$$

Forward kinematics: V2

$$X = R \times 0.5 \times (\text{enc2} - \text{enc3})$$

$$Y = R \times (\text{enc1} - 0.866 \times (\text{enc2} + \text{enc3})).$$

✓ Tapi antara X dan Y gk sesuai dan X kebalik.

forward kinematics: V3

$$X = R \times (1/\sqrt{3}) \times (\text{enc2} - \text{enc3}).$$

$$Y = R \times 2/3 \times (\text{enc1} - (1/3) \times (\text{enc2} + \text{enc3})).$$

selisih 13 cm

forward kinematics: V4.

~~$$X = R \times ((2/3 \times \phi_1 - \frac{1}{3} \phi_2 - \frac{1}{3} \phi_3)$$~~

$$X = R \left(\frac{2}{3} \phi_1 - \frac{1}{3} \phi_2 - \frac{1}{3} \phi_3 \right)$$

$$Y = R \left(\frac{1}{\sqrt{3}} \phi_2 - \frac{1}{\sqrt{3}} \phi_3 \right)$$

kebalik X dan Y karena pemasangan enc dibalik.

Forward kinematics: V5

$$X = R \left(\frac{1}{\sqrt{3}} \phi_2 - \frac{1}{\sqrt{3}} \phi_3 \right)$$

$$Y = R \left(\frac{2}{3} \phi_1 - \frac{1}{3} \phi_2 - \frac{1}{3} \phi_3 \right)$$