



Distance of RW:

$$d_R = \frac{2\pi}{4} \cdot 9 = 14.137$$

Distance of LW:

$$d_L = \frac{2\pi}{4} \cdot 5 = 7.854$$

Distance of center:

$$d_C = \frac{2\pi}{4} \cdot 7 = 10.995$$

Geometric Equations:

$$d_R = (r+b)\theta$$

$$d_L = r\theta$$

$$d_C = 0.5(d_R + d_L)$$

$$\theta = \frac{d_R - d_L}{b}$$

$$\Delta x = r \sin \theta$$

$$\Delta y = r(1 - \cos \theta)$$

θ = heading change