

## Instantaneous center calculations

$$I_CA = \frac{6.215}{\cos(14.31)} + 3.4733 = 9.883inches$$

$$I_CB = \frac{4}{\tan(35.03)} = 5.706inches$$

## Velocity calculations

$$\omega_2 = 0.428rad/sec$$

$$V_A = (AD)\omega_2 = 3.4733(0.428) = 1.487inches/sec$$

$$\omega_3 = \frac{V_A}{I_CA} = \frac{1.487}{9.883} = 0.15rad/sec$$

$$V_B = (I_CB)\omega_3 = (5.706)0.15 = 0.859inches/sec$$

$$\omega_4 = \frac{V_B}{(BC)} \frac{0.859}{8.054} = 0.107rad/sec$$