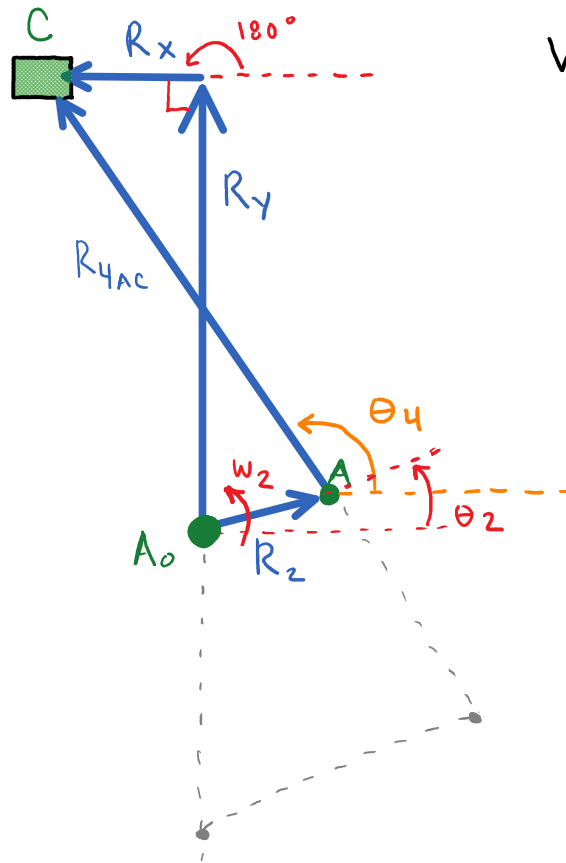


# Top Loop

Friday, March 31, 2017

8:49 PM



Vector Loop # 1 :

\*  $A_0$  = origin point

\* C = close point

$$\underline{R}_2 + \underline{R}_{4AC} - \underline{R}_x - \underline{R}_y = 0$$

Position:

$$\cos(180) = (-1)$$

$$X: l_{A_0A} \cos \theta_2 + l_{AC} \cos \theta_4 - R_x \cos(180) - 0 = 0$$

$$y: l_{A_0A} \sin \theta_2 + l_{AC} \sin \theta_4 - R_y = 0$$

Unknowns:  $l_{AC}$ ,  $\theta_4$  &  $R_x$

Velocities:

$$X: l_{A_0A} \omega_2 (-\sin \theta_2) + l_{AC}' \cos \theta_4 + l_{AC} \omega_4 (-\sin \theta_4) + R_x' = 0$$

$$y: l_{A_0A} \omega_2 (\cos \theta_2) + l_{AC}' \sin \theta_4 + l_{AC} \omega_4 (\cos \theta_4) - 0 = 0$$

Unknowns:  $l_{AC}'$ ,  $\omega_4$ ,  $R_x'$