Homework H2.F
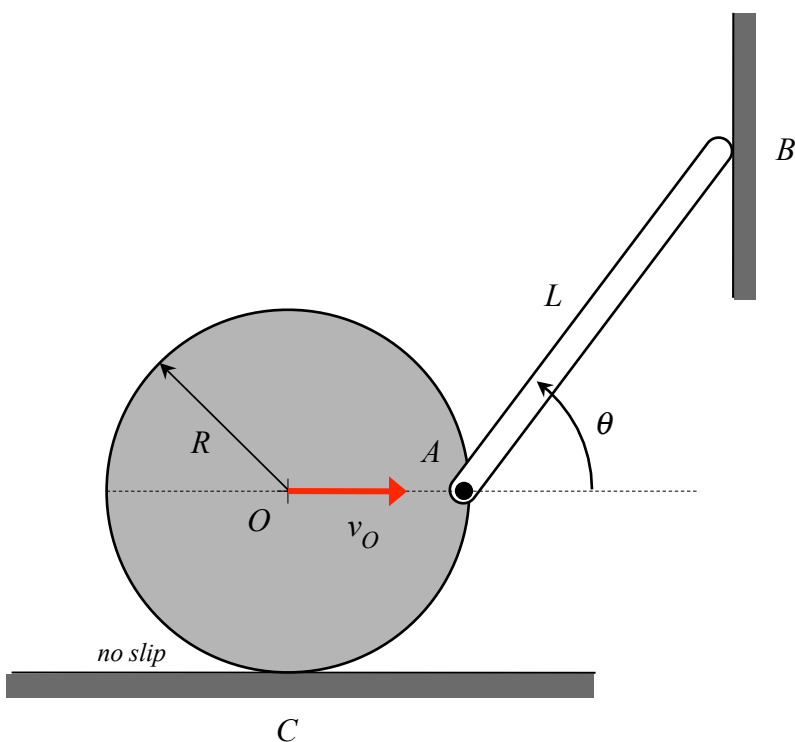
Given: A wheel of radius R rolls without slipping on a horizontal surface with its center O traveling with a constant speed of v_O. Bar AB is pinned to the outer perimeter of the wheel at end A, and end B of the bar is constrained to slide along a vertical wall. At the position shown, pin A is directly to the right of O.

Find: For the position show, determine the angular velocity of link AB and the angular acceleration of link AB.

Use the following parameters in your analysis: $\theta = 53.13°$, $L = 1.5$ ft, $R = 0.5$ ft and $v_O = 10$ ft/s.