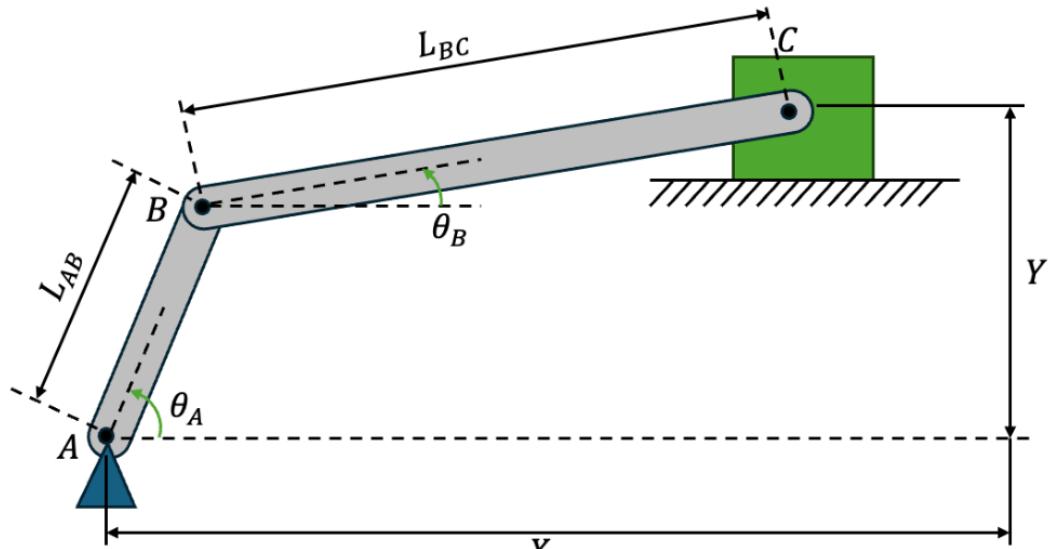


# ME 326 Winter 2025

## Part B: Crank Slider Kinematics Modeling



1. Draw mechanism in SolidWorks and put dimensions on unknowns (put screenshot into MATLAB Live Editor)
2. Verify initial conditions (ICs) for position in MATLAB match SW dimensions
3. Define A and b matrices for velocity and acceleration ICs and verify they match your calculations from Task 3

**TRANSFER EVERYTHING YOU HAVE DONE TO  
CrankSlider\_Kinematics\_INCOMPLETE.mlx**

4. Create structure called CrankSlider and put constants, input ICs, and unknowns ICs in there
5. Input structure ICs into Simulink model (crank\_slider\_INCOMPLETE.slx) integrator blocks.

**-THE CURRENT VALUES IN INTEGRATOR BLOCKS ARE  
PLACEHOLDERS. YOU MUST CHANGE THEM.**

**-You need to change the filename to crank\_slider.slx**

5. Put A and b matrices for acceleration into MATLAB function block in Simulink.
6. Simulate mechanism and animate
7. Plot mechanism in final form traced by points B and C
8. Plot horizontal and vertical velocities of points B and C against time