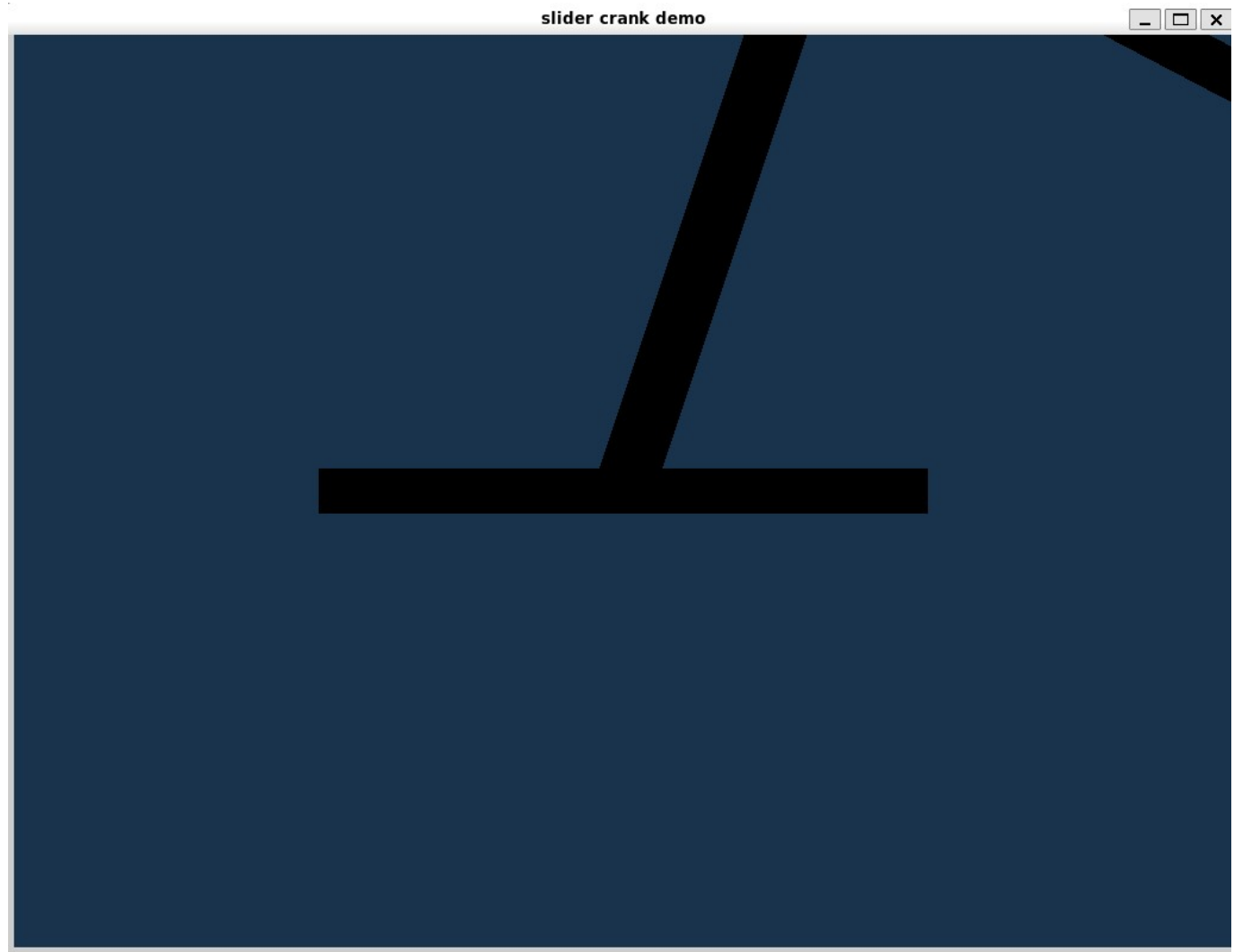


**Problems 6.1, 6.2, 6.3** Codes are attached. Check out my GitHub as well:

<https://github.com/bclaas/me751/tree/main>

**Problem 6.4** Chrono VSG graphics don't render correctly on my computer / WSL (emailed about it last weekend).

Best screenshot I got:



Answering the questions best I can based on the code: **(2) Bodies (and roles)**

- Ground: fixed base (a thin box,  $1.0 \times 0.1 \times 1.0$ ). Role: inertial reference / anchor for the first joint.
- Crank (link 1): box of length  $\sqrt{2}$ , initially at  $(0.5, 0.5, 0)$  and rotated  $+\pi/4$  about z. Role: first pendulum link driven at its base.
- Rod (link 2): box of length 2, initially at  $(\sqrt{3}/2 + 1, 0.5, 0)$  and rotated  $-\pi/6$  about z. Role: second pendulum link connected to the crank.

**(3) Joints (how many, which bodies) 2 joints total:**

- Revolute speed motor between ground  $\leftrightarrow$  crank, joint frame at  $(0, 0, 0)$ .
- Revolute joint between crank  $\leftrightarrow$  rod, joint frame at  $(1, 1, 0)$ .

**(4) Actuation (what and where)**

- Type: a prescribed angular speed (motion driver), not an applied force/torque. Implemented with ChLinkMotorRotationSpeed using a constant function  $\omega = \pi$  rad/s.
- Applied between: ground and crank at the base revolute (the motor enforces relative speed at that joint).