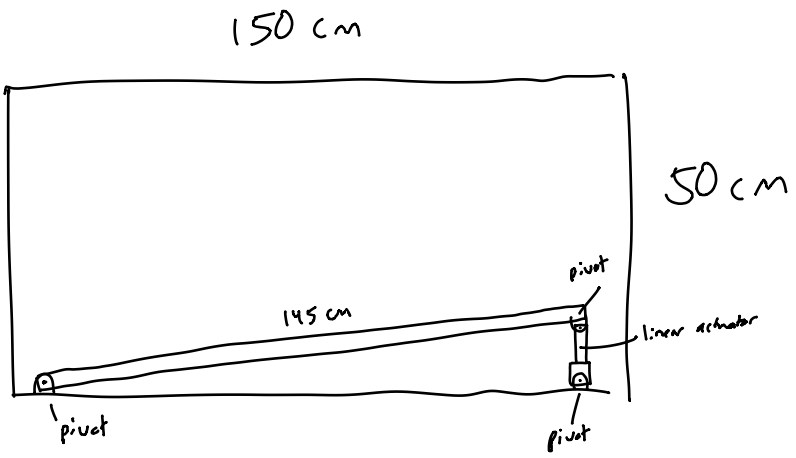
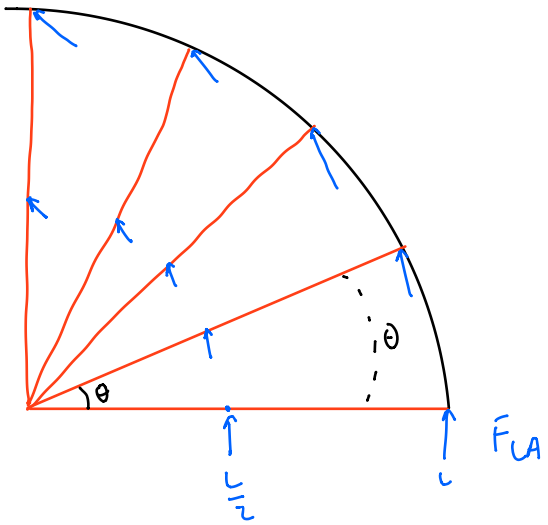
Portfolio



(projected)
Path of pivot of bar + actuator:



$M = rF\sin\theta$

$\sin\theta$ decreases proportionately as bar moves upward, independent of r

$\therefore M \propto r$ and F

$\therefore$ placing linear Actuator at L provides most torque, maximizes upwards force of L.A.

Selected: RSX because it has the greatest stroke length and force

Assumption: speed, screw/nut type, and duration capacity are not considered b/c they are not specified in the question.

Length: 145cm - A little leeway (as opposed to a max 150cm length and hence max torque) to provide for size of actuator, size of pivot, size of load - essentially a little leeway.