

# Torque and Center of Mass

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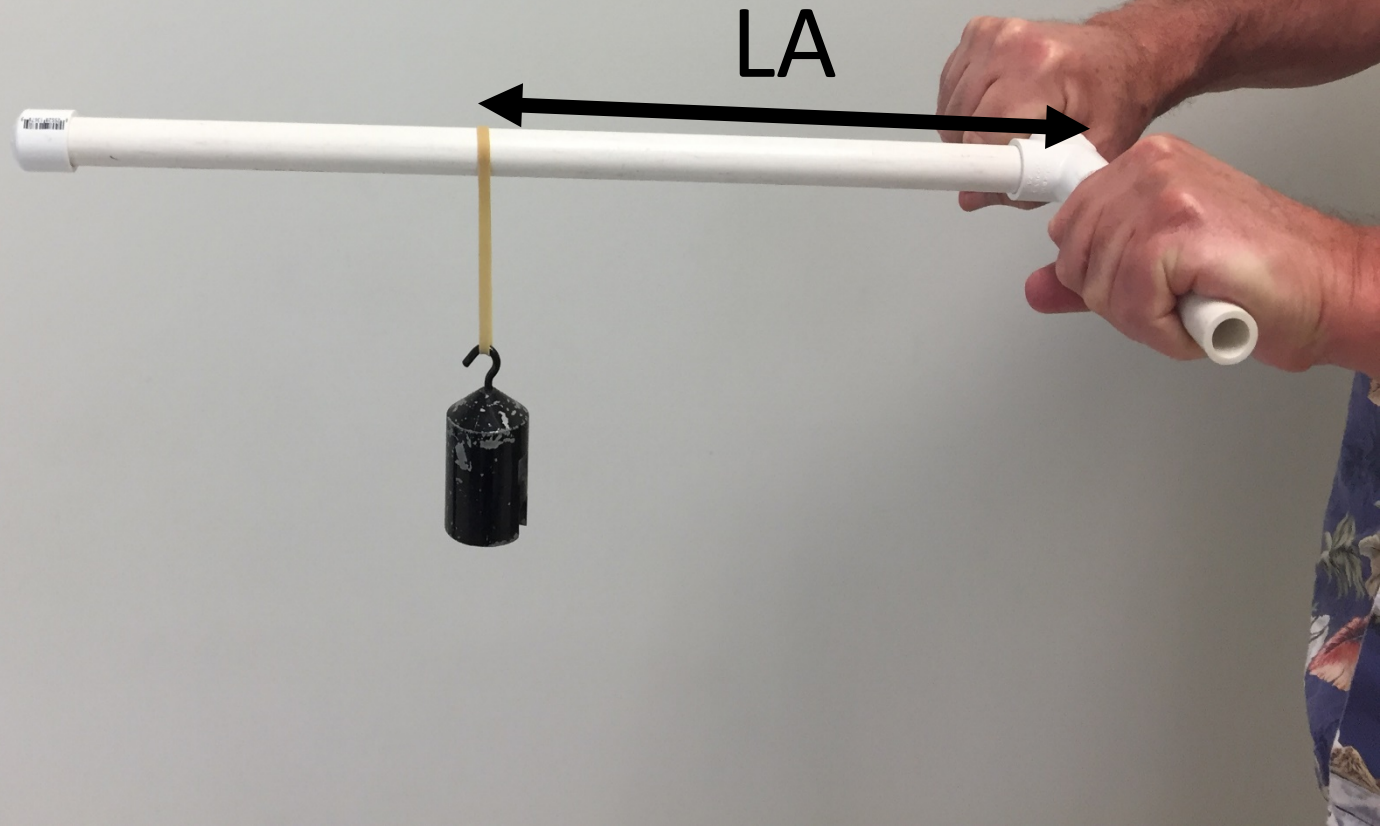
## Torque Demonstrator

½ inch PVC Sch 40 pipe

Handle diameter=  
2.14 cm = 27/32 "



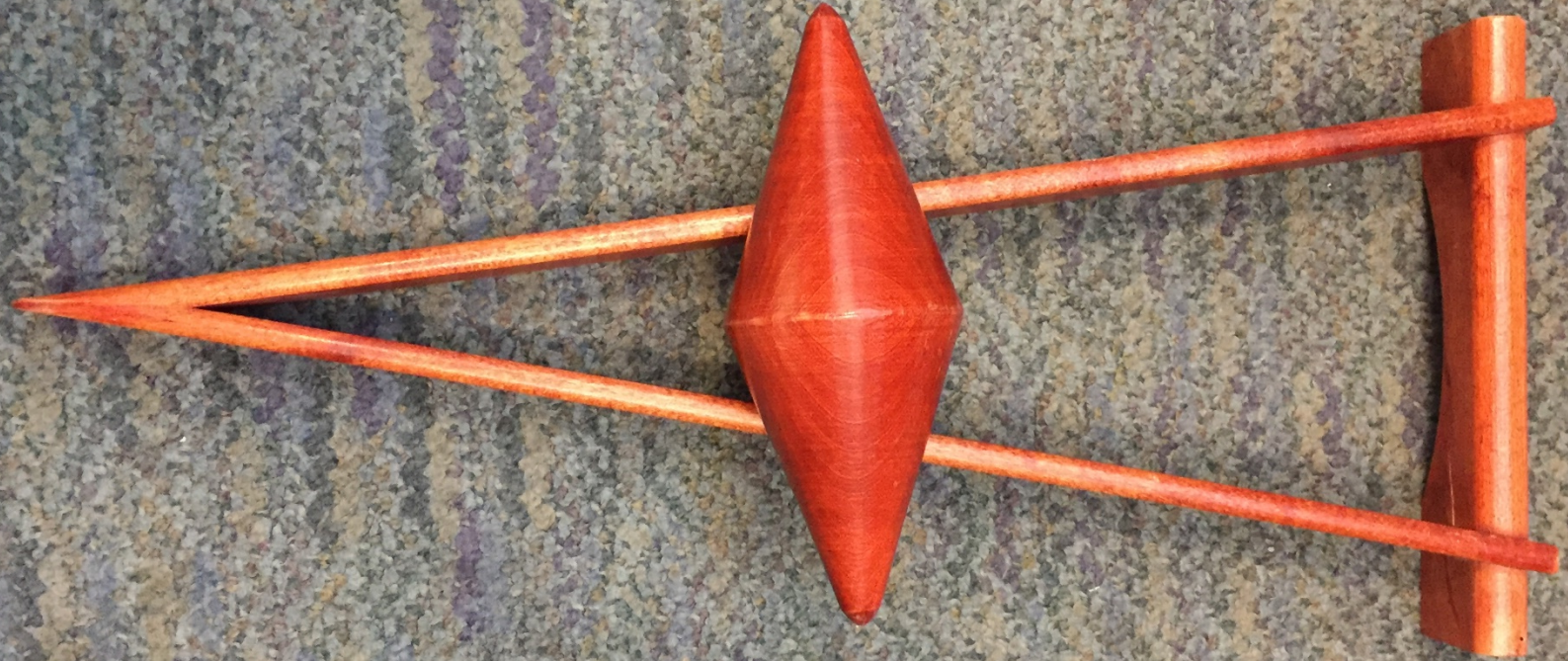
Torque=  
Force x Lever Arm













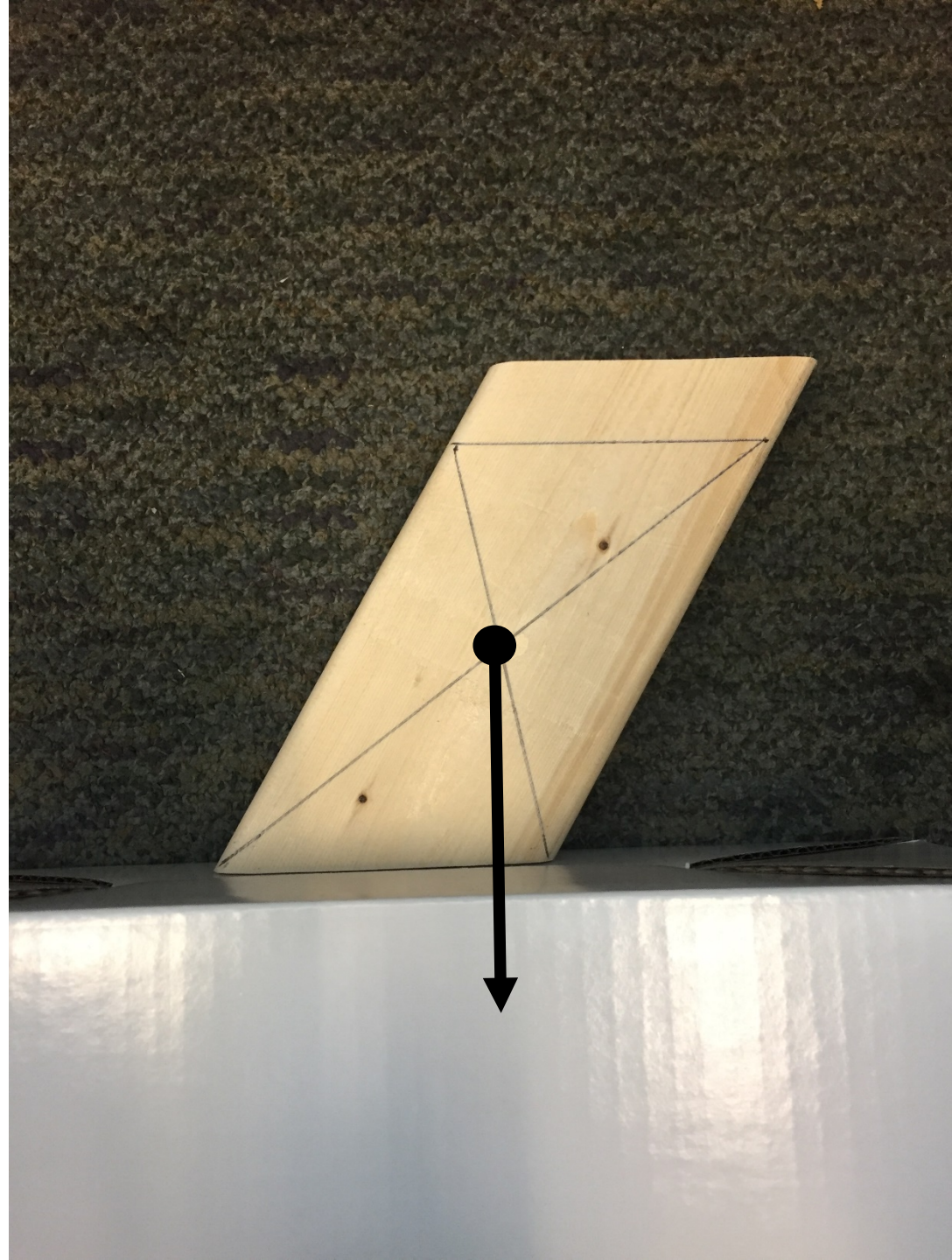


In a parallelogram,  
The center of mass is at the  
intersection of the two diagonals.

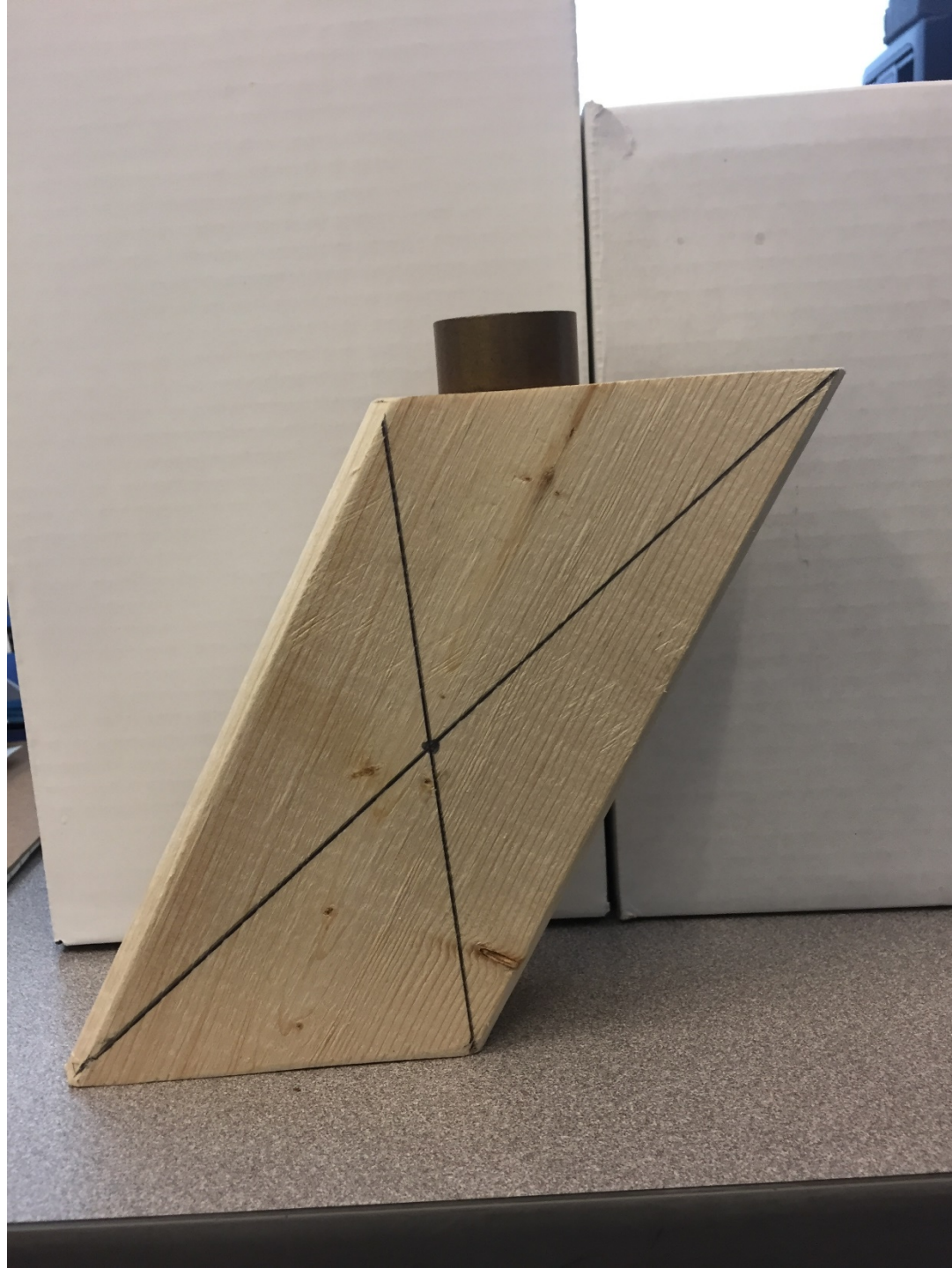
To be stable, the center of mass  
must lie within the base of  
support



If I cut the top off the block and redrew the diagonals, the center of mass will move well within the base of support



Block is 300 grams  
Mass on top is 100 grams



Mass taped to bottom is 100 grams

