

GROUP A

# BALANCE SCALE

# REQUIREMENTS

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- A fixed size of stabilized vertical scale, the size could be adjusted using any specified value as a function argument at the start of simulation
- 5 sizes of small object (0.5, 1, 1.5, 2, 2.5 kg) and 5 sizes of big objects (3, 5, 7, 11, 16 kg)  
Initially, one of the scale arm is placed with 1~3 ea of big objects (randomized in amount and size)  
Using either mouse or keyboard input to adjust the size of the small objects and
- place them in another scale arm to stabilize the scale

# EXPECTED RESULT

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- The scale arm needs to be rotated with speed and direction that correspond to the applied force to each arm
- System status window displays the total amount of weight/force on the arm that hold the small size objects, the display color changes according to the stabilized state (Green : Stabilized, Yellow : Almost stabilized, Red : Not close)

# COMMON REQUIREMENTS

THE REQUIREMENT THAT MUST BE  
INCLUDED FOR ALL THE PROJECT TOPICS



## REMARKS !!!

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All the topics must include the additional requirements as shown below

- Start/Launch/Compute button – to start the simulation
- Stop button – to stop any on-going simulation
- Undo button – to undo all additional adjustment within the system
- Reset button – to reset all the configurations and activities occurred within the system
- System status window (Numerical report) – to display any numeric-related value
- Notification message (Text report) – to warn the user for some certain phenomenon
- System log file after closing the simulation – record all activities performed during  
the launch of simulation
- Any Identification color to distinguish the changes within the system