



Activity 5.3: Impact Detection

Task 1: Experimental Set-Up

- ☒ ~~Load the file onto your LunaSat~~
- ☒ ~~Verify the code, then upload it to the LunaSat~~
- ☒ ~~Get a paper plate from a moderators that has sand or other medium in it~~
- ☒ ~~Grab the three objects from the last activity (paperclip, marble, chosen object)~~
- ☒ **Gently** set LunaSat in the tray face up

Task 2: Conduct the Experiment

Fill out the tables below according to which material you're dropping. **Do not drop materials on the LunaSat.** Drop the objects from the same height.

Material	Did Accelerometer Detect Motion?
Paperclip	No
Paperclip	No
Paperclip	NO

Material	Did Accelerometer Detect Motion?
Marble	Yes
Marble	No
Marble	No

Material	Did Accelerometer Detect Motion?
Chosen Object	Yes
Chosen Object	No
Chosen Object	Yes

```
-> Calculated Difference in Acceleration: 0.67
-> Impact detected
-> MPS, X-Axis: 0.28730419
-> MPS, Y-Axis: 0.28490999
-> MPS, Z-Axis: -11.47780323
->
-> Calculated Difference in Acceleration: 0.03
```