

## Group 4 Project Milestone 1

### Team:

- Shreya Bakshi
- Gowtami Khambhampati
- Danqing(Iris) Wang
- Rathi Kannan

### Overview:

Starter program on microbit to count steps using accelerometer.

Step 1: Visit MakeCode (<https://makecode.microbit.org/>). Use the visual editor to write a step counter. For starters, you can assume a “shake” is equivalent to a step. When you update the counter, you should also display the current step count on the microbit’s LEDs.

### Source code:

[https://github.com/ratsi2909/MSITM\\_EmergingTech/tree/main/Group4\\_Milestone1](https://github.com/ratsi2909/MSITM_EmergingTech/tree/main/Group4_Milestone1)

Step 2: Test your step counter. Does it reliably count your steps? Identify at least one limitation that is interfering with its step counting (hint: one has to do with the display). Fix the implementation. Your fix should include (at a minimum) the use of a button.

### Limitation and fix:

- **Initially we implemented a step counter with ‘shake gesture’. This was detecting any form of shake gesture (not specific to walking) and updating counter.**
- **To make a more accurate step counter, we decided to update the program to update steps only if detected by accelerometer.**

Step 3: Test the refined step counter. Describe and document your tests, including your results. Identify at least one additional way you might modify your step counter to make it more reliable. Attempt to implement your proposed modification(s).

### Additional features:

- **Reset count on pressing Button A**
- **Show ‘Hurray’ when step count reaches some pre-set threshold.**