Fall Detection

* While in CLIMB Mode, if the magnitude of the net acceleration exceeds ACC\_THRESHOLD, the system enters EMERGENCY Mode. This can be simulated by shaking the board gently.
* Net acceleration is defined as the square-root of (anx2+any2+anz2), where anx, any and anz are the differences between current accelerations in x, y and z directions and the accelerations in the respective directions at the instant when the system entered the CLIMB mode. In other words, anx = ax - acix , where ax is the current acceleration in the x-direction, and acixis the acceleration in x-direction at the instant when the system entered the CLIMB mode.
* When the net acceleration exceeds ACC\_THRESHOLD, the device should enter EMERGENCY Mode.
* The net acceleration (to 1 decimal place) should be displayed on the OLED screen in the following format: "Acc: x.xx" where x.xx is the net acceleration accurate to 2 decimal places, in 'g's (1g = 9.8m/s2).