

## **Accel-A-Sketch**

The idea of our proposed app is an etch-a-sketch drawing app, where instead of the traditional etch-a-sketch's twistable knobs, the device's accelerometer controls the "pen" to let the user draw in the exact direction they want. We believe this will be simple enough to implement once we understand how the Android operating system makes use of a device's accelerometer in various other applications.

In our current design, the app will consist of a blank white activity screen with 4 buttons:

- Start: let the pointer on screen start moving using the accelerometer
- Stop: stop the pointer from drawing on the screen to allow for repositioning
- Reset: erase the drawing in case the user wants to start over
- Calibrate: recalibrate the device's accelerometer in case of control errors

Our motivation behind building the app is a desire to understand how Android's accelerometer works and how it can be implemented into various applications. After looking at a few apps in the Google Play Store, we've seen that there are various etch-a-sketch apps already available, but few that implement the accelerometer to manage drawing controls.

This app works better as an Android app than a website or web-app since most browsers can't access the phone's built in accelerometer (at least, not with the level of precision we want). In addition, if a user is offline and has no internet access, they can still use this app as something to do in their spare time – a small app like this may not be worth the cost in mobile data and battery drain that it entails, but an offline etch-a-sketch app can be perfect for on the go.