Brian Engel

Module 6 Assignment

The SensorManager allows use of all the sensors attached to the device you are creating an application for. The first thing you need to do is include a uses-feature statement in the manifest to tell the device what sensors you will be using. It is not required for low-risk sensors like the accelerometer or gyroscope, but it is good practice to put it in anyway. After the use-features are declared, you can create an instance of SensorManager. This allows you to be able to identify the sensors on the device and work with them. You also need to create a Sensor instance for each sensor you are working with. Since you are probably pulling data from them when they change, you also need to create an instance of SensorEventListener for each sensor that you are using. Since this can drain the battery, it is better to register (activate) it on resume and unregister (deactivate) it on pause. I didn’t really understand this very well until I programmed it myself, but I learn better from programming than reading, and I feel like I have a solid grasp on it now.

The SensorManager can be use in detecting the position of the device by using the accelerometer and the magnetometer together, since you can get the exact x, y, and z directions of the face with the accelerometer, and then using the magnetometer to determine direction. You can also use it for gesture recognition by reading the accelerometer and the gyroscope, since those will track movement and rotation. While the sensors themselves are fairly powerful, using them together can give you a ton of options.