**CS-360 Module 6-3**

**Sensor Manager**

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Android devices are packed with various sensors. Some of these include temperature sensors, an accelerometer, gyroscope, light, and proximity sensors. In programming these devices for specific tasks, the sensor manager is a tool used to read data from these various sensors. It allows the programmer to utilize data for various features within the program and device. One typical sensor in most devices is the accelerometer. This sensor reads the device orientation. Programmers can use it to determine screen orientation or in fitness apps to calculate steps taken, etc. The accelerometer can tell which direction the phone is pointing as well as measure the device acceleration. This can be useful for programmers developing app filters and motion-based features within newer apps. The temperature sensors can be used in combination with apps that display ambient temperature, or even device internal temperatures to manage resources within the device. With security concerns being of utmost importance these days, there are biometric sensors on many android devices. These could be fingerprint readers that allow access to the device or even certain programs. Other biometrics can be measured with infrared sensors, light sensors, onboard cameras making facial recognition possible. The sensor manager provides a means by which programmers can use these sensors and provides for a betters experience an more usability for modern devices.