# Sensor Accuracy Settings

1. Find out how much the sensor accuracy settings affect the algorithms. There are three settings, the lowest setting will probably conserve the most battery life but how much will it affect the overall accuracy of the algorithm. [link](http://developer.android.com/reference/android/hardware/SensorManager.html)
   1. SENSOR\_STATUS\_ACCURACY\_HIGH - This sensor is reporting data with maximum accuracy.
   2. SENSOR\_STATUS\_ACCURACY\_MEDIUM - This sensor is reporting data with an average level of accuracy, calibration with the environment may improve the readings.
   3. SENSOR\_STATUS\_ACCURACY\_LOW - This sensor is reporting data with low accuracy, calibration with the environment is needed.
   4. SENSOR\_STATUS\_UNRELIABLE - The values returned by this sensor cannot be trusted, calibration is needed or the environment doesn't allow readings.
2. Find out how much the accuracy changes with these different sensor speed settings.
   1. SENSOR\_DELAY\_FASTEST - get sensor data as fast as possible (8) ~10ms
      1. TimeStamp: 28078123587000
         1. -10077000
      2. TimeStamp: 28078133664000
         1. -10009000
      3. TimeStamp: 28078143673000
         1. -10077000
      4. TimeStamp: 28078153750000
         1. -9913000
      5. TimeStamp: 28078163663000
   2. SENSOR\_DELAY\_GAME – rate suitable for gaming (8) ~ 20ms
      1. TimeStamp: **283925**35202000
         1. -20025000
      2. TimeStamp: **283925**55227000
         1. -19986000
      3. TimeStamp: **283925**75213000
         1. -19960000
      4. TimeStamp: **283925**95173000
         1. -19933000
      5. TimeStamp: **283926**15106000
   3. SENSOR\_DELAY\_UI – rate suitable for UI (8) ~60ms
      1. TimeStamp: **285024**18296000
         1. -60126000
      2. TimeStamp: **285024**78422000
         1. -59803000
      3. TimeStamp: **285025**38225000
         1. -60164000
      4. TimeStamp: **285025**98389000
         1. -59889000
      5. TimeStamp: **285026**58278000
   4. SENSOR\_DELAY\_NORMAL - rate suitable for screen orientation changes (9) ~200ms
      1. TimeStamp: **28257**937530000
         1. -201019000
      2. TimeStamp: **28258**138549000
         1. -200599000
      3. TimeStamp: **28258**339148000
         1. -199596000
      4. TimeStamp: **28258**538744000
         1. -199877000
      5. TimeStamp: **28258**738621000