Applications

**Simulator**

List of detected actions

Estimated Power Consumption

Accelerometer Trace

Sensing Approach   
and Parameters

Ground Truth

Power Measurements

Detection Recall

Detection Precision

Wake-up Precision

**Comparator**

Number of Wake-ups

Asleep Time

Awake Time

**Power Model**

**Trace Processor**

UART Stub

**UART / audio port**

Filters

**Low-Power Smart Sensor**

Controller

Sensor Driver

UART Driver

Dalvik   
Runtime

**Nexus 4**

Android Operating System

Java Application

Sensor Manager

Hardware

Hardware Sensors

Predefined Activity Recognition

Sensor Data Batching

Sensor Manager

Applications

Applications

Sensor Data Filtering

Hardware Sensors

Hardware

Predefined Activity Recognition

Sensor Data Batching

Sensor Manager

Sensor Data Batching

Applications

Sensor Manager

**Smart Sensor  
Hardware**

Predefined Activity Recognition

Sensors

Filters