

# Mpression Odyssey Kit Firmware Update Release Notes & Errata

## Version 1.1

Posted 6/5/2015

### Capabilities Added

1. SPI reads & writes \*
  - To/from ADI ADXL362 Accelerometer device
2. Enabled user data entry field for writes to sensors/registers\*
  - When the source for write data is “write entry” a pop-up in the smart phone App requests write data from the user. User must setup range and details in the web utility for “write entry field”
  - Using hex format for write entry data is coming soon in a release for web utility and App (v2.0)
  - Original firmware may work for single byte entry data with v1.1 web utility & smart phone App
3. “Copy & Edit” of personalities to include attached FPGA image

### Fixes / Updates

1. Brief LED flashes (3 times in first few seconds) to indicate power-on & processor alive\*
2. Write to register location 0 fixed\*
3. User Console - Proximity test option fixed\*
4. Simplified fields in Web utility
5. Power efficiency improved (Sensor Board)\*
  - Improves battery life for using battery board with coin cell
  - Minimal sleep mode added to EFM32 processor code: between commands / BLE requests
  - Battery life not quantified (not fully optimized) and varies per personality usage
6. Other basic App and Web utility fixes

### New Public Personalities Available on Web Utility

1. **Motion Detect** (ADI ADXL362 Accelerometer)\*
  - Detects motion (movement of the sensor board / kit)
    - Status register value in autonomous update field: 01=stationary, 65=Awake (moved)
  - Buttons read X, Y and Z axis (8 MS-bits) – can tilt up down, sideways to see effects of gravity
    - 1 G = 64 decimal (reading on any axis)
2. **Proximity detection** (vertical height using SiLabs Si1147)\*
  - Gives LED reflectivity values for distance of objects above sensor (mounted in O-ring)
  - Range values: Approximately 200-300 for 20 cm –to- 30000+ at 1 cm
  - Values may vary from board to board, but typically consistent for any given board
  - Single channel configuration: PS1

\*Requires Odyssey kit firmware update to sensor board

See the [Odyssey Kit Info site](#) for updating the Odyssey kit firmware:

- **Odyssey User Guide** – Chapter 5
- **Software Download** link for v1.1 firmware (EFM32 & BLE)

### Errata

1. The command “CMD Stop” is not implemented (Odyssey kit firmware v1.0 & v1.1)
  - Typically used to terminate ongoing commands like “GET\_HRM” (heart rate monitor)
  - Support anticipated in upcoming release (v2.0)