



Case Study

ECG Monitor Prototype

Project/Client Details

- Architecture and quick realization of PoC using off the shelf components.
- Startup company specializing in IoT based product

Design Scope

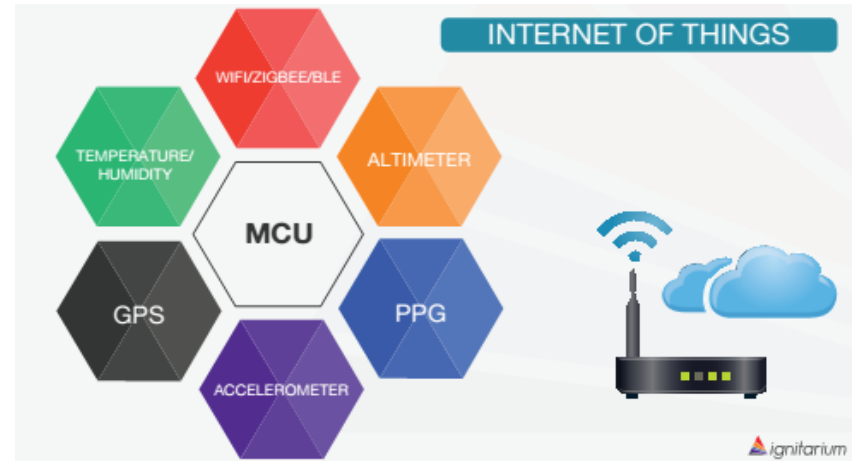
- GPS: UART driver to read GPS values
- Altimeter: I2C driver to read barometer value
- Transmit sensor readings: Send time stamped sensor readings over WiFi to a predefined web server at predefined interval of 3 minutes
- Support for WiFi
- ADC: 12-bit ADC for interfacing the ECG monitor
- Battery: Prototype to use AA or AAA batteries

Expertise/Tools

- Porting of TI SDK to CC3200 custom board
- Device drivers for
 - Altimeter (I2C), GPS (UART)
 - PPG EVM (SPI Interface)

Highlights

- Designed using TI CC3200 with built-in WiFi
- MediaTek MT3339 based GPS-2509 module from Rhydolabz and compatible antenna
- Bosch BMP180 digital barometric pressure sensor based altimeter module
- TI AFE44x0SPO2EVM based PPG sensor





THANK YOU



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