



GadgEon

Engineering Smartness

KPAK- GOPRO FLASH ACCESSORY



KPAK- GoPro Flash Accessory



K-Pak is BLE enabled device which can be used to add LED flash to Go Pro cameras and can be controlled using an iOS App and a remote control device.

Results / Outcomes

- Development of complete device firmware
- Integration of Mechanical and electronics
- Native Android and iOS application to control the GoPro flash
- Device to be launched in USA



System Description

Challenge

- Integrated solenoid and mechanical means, depresses the shutter release button on the GoPro camera
- Timing between flash and trigger to solenoid

Feasibility study and Documentation

- Requirements Gathering & Analysis, competitive product study,
- H/W Architecture development and finalization
- Component selection of all components and BOM management.

Hardware Design (Schematics)

- OrCAD for schematics and allegro16.6 for layout

Embedded Firmware

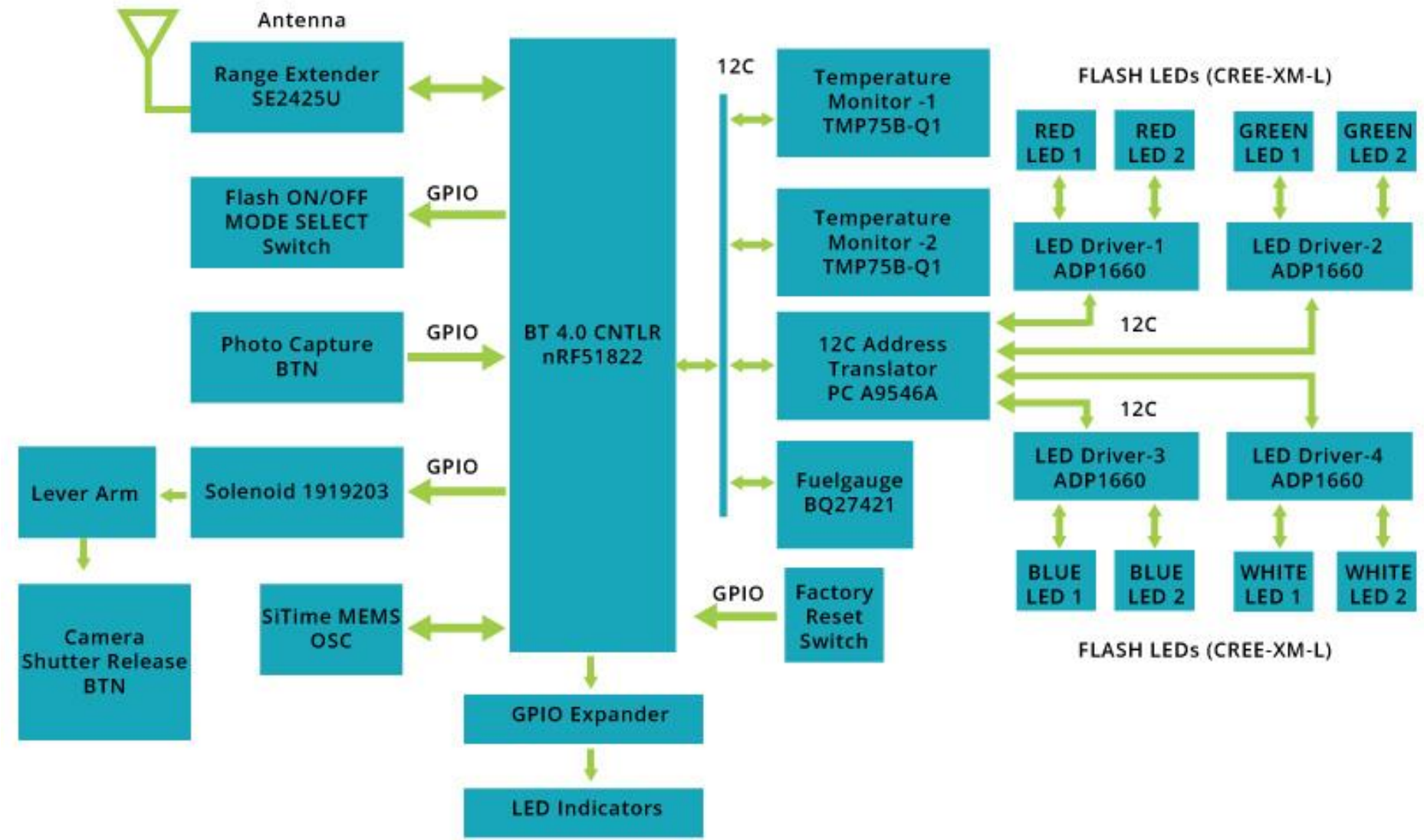
- Nordic nrf51 BLE Stack and SDK , Keil IDE. The device has the following hardware peripherals
 - TI's DUAL LED Flash driver - LM3643.
 - ADEX 1919203 Solenoid
 - Linear Technology's LTC2942 - Fuel Gauge

Mobile App Design and Development.

- Followed the recommended design patterns from Apple. Custom Video moods, Photo modes and Strobe Options.



KPAK – HW Architecture



THANK YOU



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