Smart Outlet

Last updated -

Jeremy Delaporte <jeremy.delaporte87@gmail.com>

Starting date: - Duration: -

Skills involved

- Electronics
- Programming on ARM Cortex-M3 based microcontroller
- Mobile App. Development
- 3D Printing

Description of the project

The aim of this project is to complete the design of an outlet capable of measuring the energy consumed by the device plugged into it. It has a Bluetooth interface in order to communicate with a smartphone or a tablet.

Smart outlet

- Energy consumption measuring
- Power On/Off from command or based on a scenario

Mobile App.

- Configuration of the smart outlet
- Read of data (energy and temperature)

Detailed information (TBC)

Smart outlet

Energy consumption measurement

Power On/Off (from command or based on a scenario)

Mobile App.

Configuration of the smart outlet

The application must have a configuration menu to initialize parameters of the smart outlet:

- Date and time synchronization
- Clear all data in EEPROM
- Name and ID
- Sample frequency

Read of data

The application must be able to read differents data from the smart outlet:

- Energy consumption measured
- Internal temperature
- Status of the relay
- Information about the memory capacity

Creation of scenario

The application must be able to create a scenario that describe the status of the relay:
Date-Time+Command - Command can be On or Off

Current status

A working prototype (PCB and Case) has been developped but some work are still needed in order to have a full working prototype.