

Smarter House



Aims and Objectives

Aims:

- To create an ambient smart house that is energy efficient and easy to use.
- Removes tasks from household management from the individual.

Objectives:

- To develop the ability to:
 - Detect when an individual steps in or out of the house.
 - Detect when an individual uses objects in the house.
 - Turn on or off any lights in the house by your mobile phone.
- To develop a simple artificial intelligence to learn the owner's routine and estimate when they are due to arrive at/leave the house and react to it.
- Connect to Google Calendar to find out what the owner is doing and react to their appointments.
- To build an easy to use front end interface.

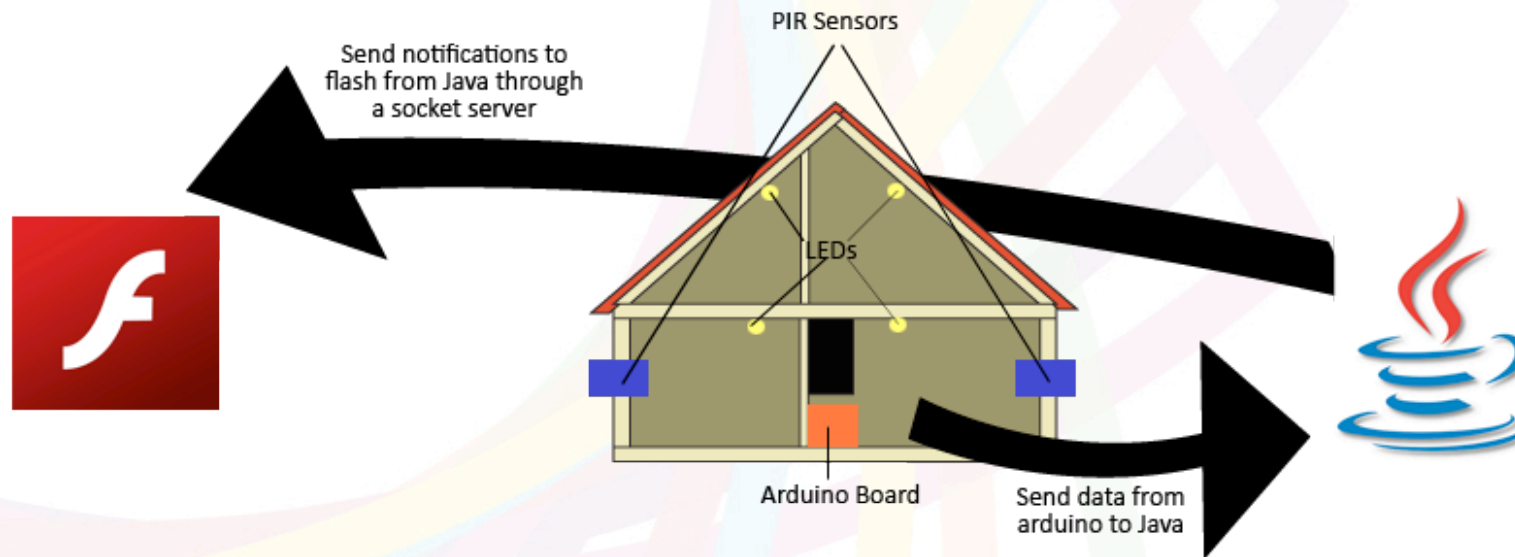
How does it link to a Smarter Planet?

- Accommodation takes up a large majority of cities in the UK, this could be applied to every house.
- It is environmentally friendly without causing discomfort or hassle/change in routine or activity.
- The house uses data to adapt and learn your routine.
- Improves quality of life, never without hot water or a cold house.
- It has the ability to go worldwide, this could be installed in every building, house, shop etc.
- It allows you to control you house from another location, allow full customization of the house.

How it Works

Technologies used:

- Arduino board
- 6 LEDs
- 2 PIR (Passive Inferred) sensors
- Java to develop artificial intelligence
- MQTT and RSMB to communicate
- Flash to visualize the front end.



Conclusion

What wasn't achieved?

- Humidity sensor

The future?

- Make it completely wireless
- Create an iPhone app to run this with
- Apply it to a real house
- Control more appliances with the mobile phone