Smart Home System



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AMIT

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Graduation Project

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What are Smart Homes?

Smart home refers to a convenient home setup where appliances and devices can be automatically controlled remotely from anywhere with a connection using a mobile or other networked device. Devices in a smart home are interconnected through the internet, allowing the user to control functions such as security access to the home, temperature, lighting, and a home theatre remotely.

• What are the Components used in my Project?

o Controller: 2 x Atmega 32 microcontroller.

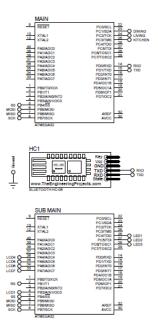
o LEDs: 6 x LEDs

Bluetooth Module: Bluetooth "HC-05"

o Digital Display: LCD "LM016L"

• The Process:

In my system, we have 3 rooms the Kitchen, Living and Dining room we need to control its lighting, so we make a system to control them individually using Bluetooth from any mobile device (Android). We also added an option to turn ON and OFF the whole house (Kitchen, Living, Dining) from the main microcontroller. We also added 3 independent LEDs to indicate is of the transmission and receiving of data in the Sub Main microcontroller.





• User's Manual: the program is CASE SENSITIVE

- o 'K' → Kitchen lights ON
- o 'k' → Kitchen lights OFF
- o 'L' → Living room lights ON
- o 'l' → Living room lights OFF
- o 'D' → Dining room lights ON
- o 'd' → Dining room lights OFF
- \circ 'H' \rightarrow All lights in the house ON
- o 'h' → All lights in the house OFF