Smart home project using ATMEGA32

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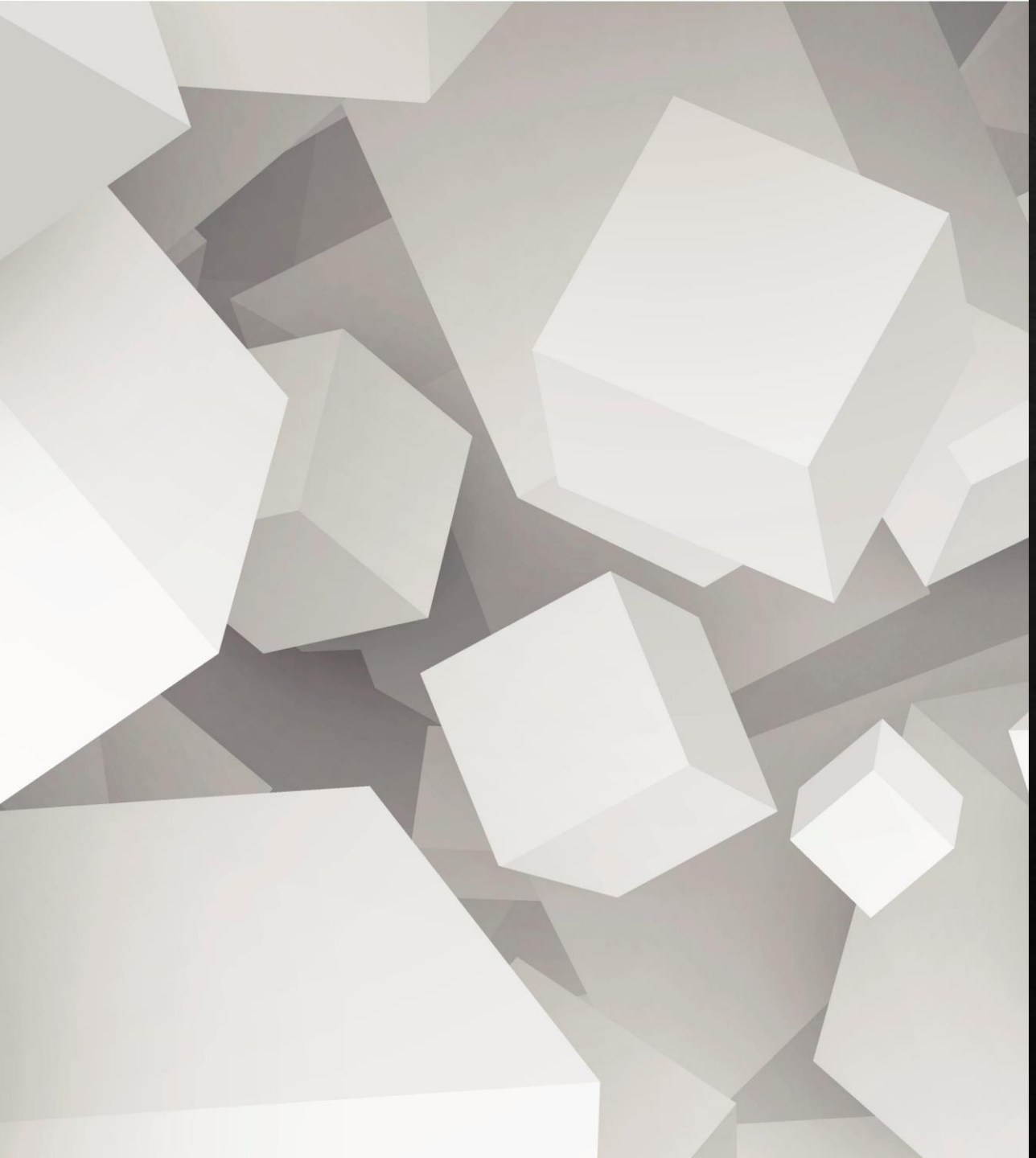

Topics

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  - **Component involved**
- **Proteus simulation**

About

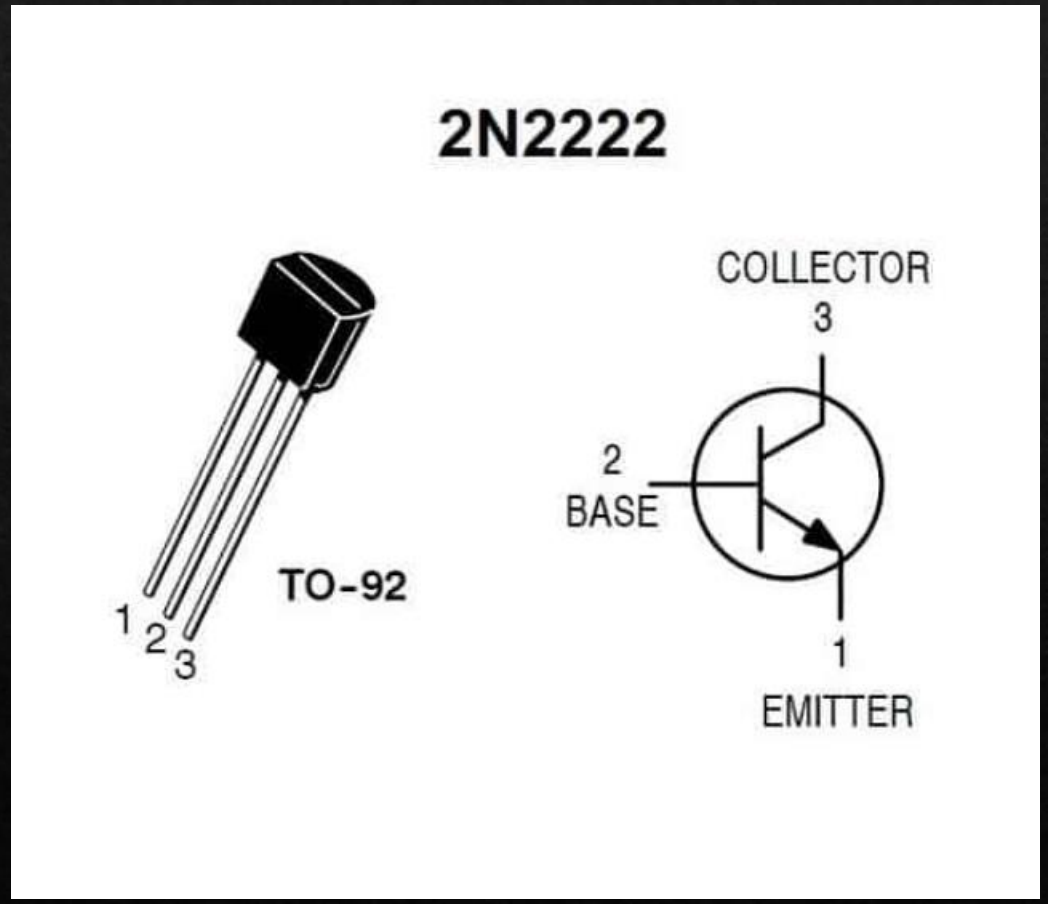
About

- This project demonstrates how to setup a simple smart home automation using Atmega32
- In this project, I make a door lock system with virtual terminal It will open the door only when the right password is entered and if the password is wrong then it will show a message TRY AGAIN!! And show the degree in Celsius in LCD , control of light and air condition .

Specifications

Specifications

1. 2N2222:
   - use as switch in order to control LEDS and DC motor.



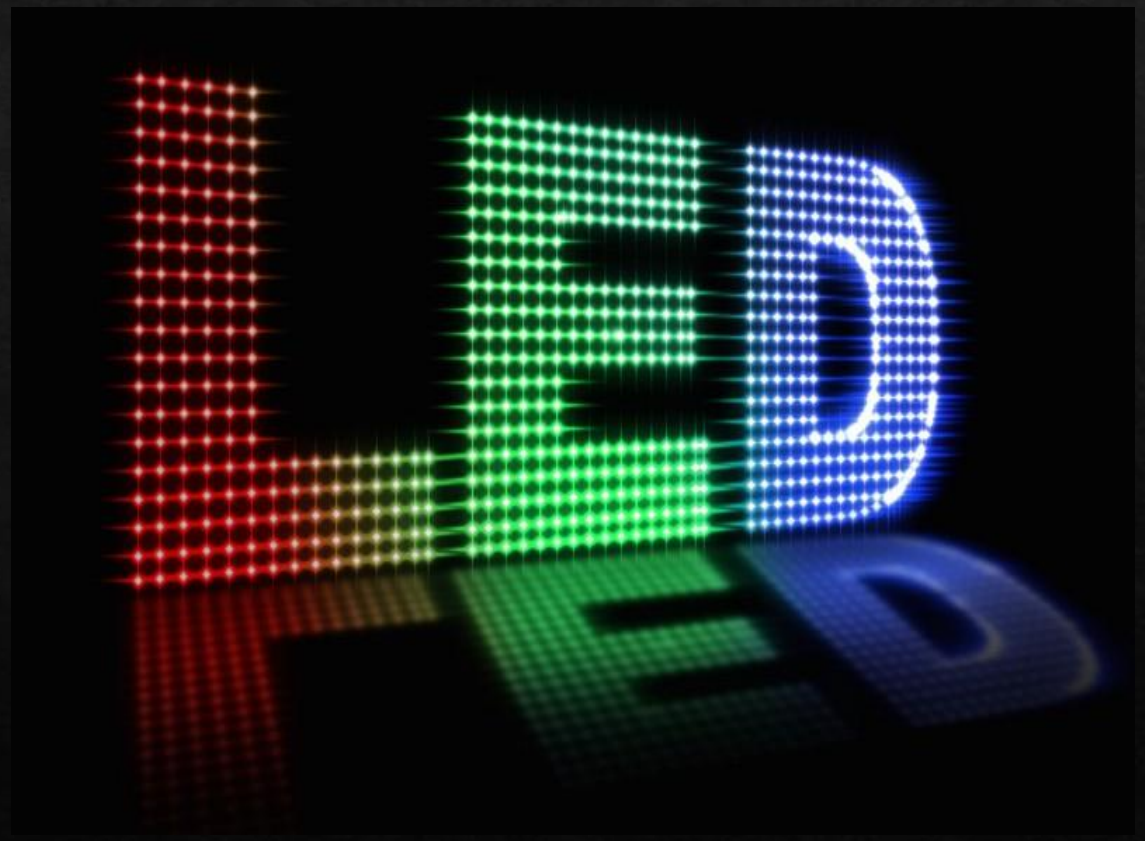
Specifications

2-Device:

Transmitting and receiving data using UART protocol.

3-LED:

There are 3 lamps.

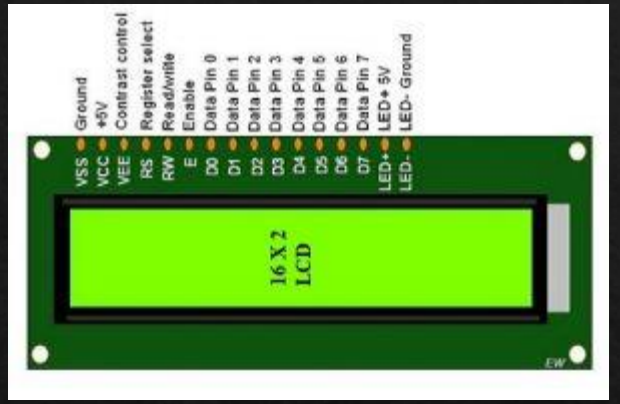


Specifications

4-Door:

A servo motor(Door) is used to control the opening and closing of the door.

Specifications



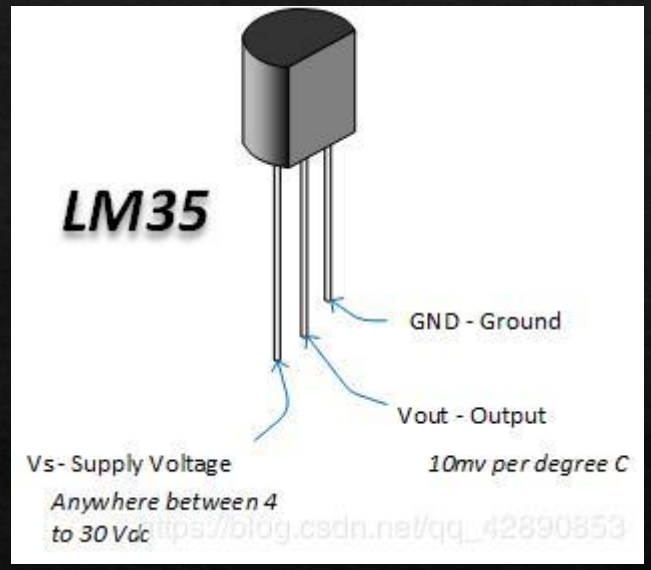
5-LCD:

Displays is used as an indicator for the user for each system stage

Specifications

Temperature Sensor, DC motor :

Temperature sensor reads the ambient temperature, if the temperature is higher than specific temperature, DC motor (Air conditioner) will run until it reaches the specific temperature.

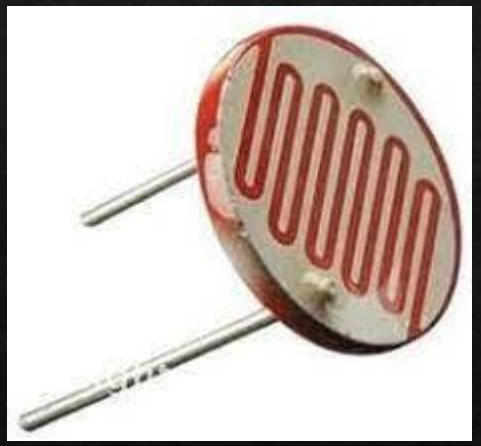


Specifications

- LDR

  using as way to show how light is

  and control light in house



Component involved

Component involved

- Microcontroller ATMEGA32
- Resistor
- LEDS
- LM016(LCD)
- LM35(temperature Sensor)
- DC motor
- Servo motor
- 2N2222 (switch)
- LDR(Light sensor)

Proteus simulation