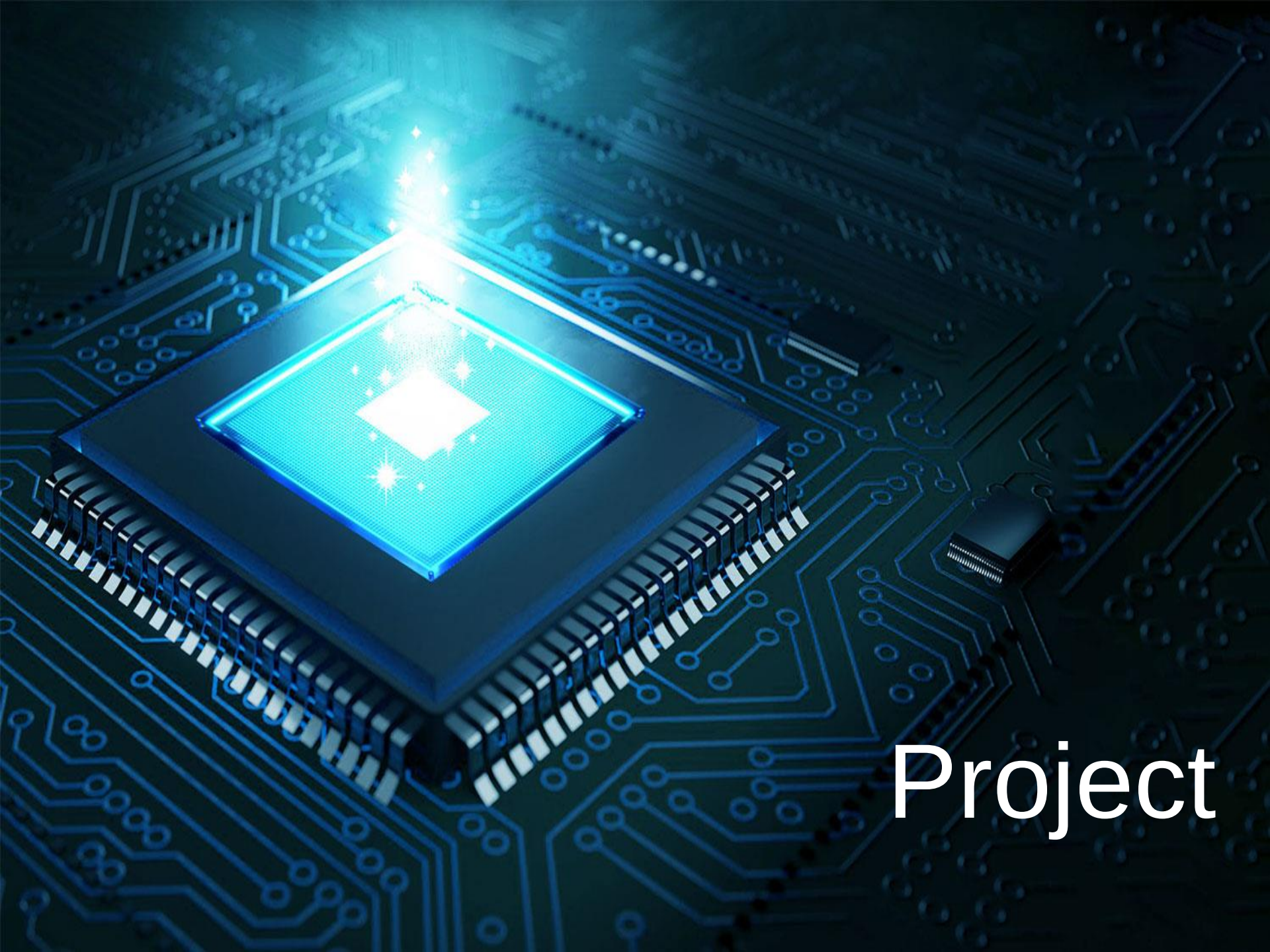
Project

Smart Home

Components :

1. Temperature Sensor.
2. DC Motor.
3. KeyPad.
4. LCD
5. LEDs
6. Relay
7. UltraSonic
8. Atmega32

Smart Home

Operation :

1. When UltraSonic detects that user is within range from 0 - 15 cm ,it displays the Authentication message .

2. When user tries to Enter system should ask for password by displaying this message on LCD
   “Please Enter Password”

3. User Enters password through keypad .

4. If user enters a correct password , system will display a successful login message Ex :“welcome Ahmed”. And relay will open .

Smart Home

Operation :

5. If user Enters a wrong password ,
   the system should display this message ,
   “wrong password , please Try again”.
6. The user has a maximum of 3 times to try to enter a correct password after that the system will lock for 2 minutes .
7. After a successful login , the system display this message :
   1- Leds ON
   2- Leds OFF
   user can choose to control leds using keypad.

Smart Home

Operation :

- System should monitor the temperature Sensor at all times
  - if : temp <= 25 → DC motor is off
  - if : temp > 25 & temp < 30 → DC motor is ON with half speed
  - if : temp >= 30 → DC motor is ON with full speed

Deliverables

List of deliverables :

1. **Block diagram** of the system based on your Understanding
2. **flow chart** of the system behavior.
3. Your **Code** ,working on both **kit** and **proteus.**

Smart Home

Extra Requirements (Bonus):

Use external **EEPROM and IIC** to store a predefined password.


THANK YOU