

Assingment-1

Date	22 September 2022
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Project Name	Industry-Specific Intelligent Fire Management System

Smart Locking Door System Using RFID Sensor and Arduino Board

PROGRAM

```
#include <SPI.h>

#include <MFRC522.h>

#define SS_PIN 5

#define RST_PIN 9

#define RELAY 3 //connect the relay to number 3 pin

#define BUZZER 2 // connect the buzzer to 2 pin

#define ACCESS_DELAY 2000

#define DENIED_DELAY 1000

MFRC522 mfrc522(SS_PIN, RST_PIN); // Create MFRC522 instance.

void setup()

{
```

```

    Serial.begin(9600); // Initiate a serial communication
    SPI.begin();        // Initiate  SPI  bus
    mfrc522.PCD_Init(); // Initiate MFRC522
    pinMode(RELAY, OUTPUT);    pinMode(BUZZER,
    OUTPUT);    noTone(BUZZER);    digitalWrite(RELAY,
    HIGH);

    Serial.println("Put your card to the reader for scanning ...");
    Serial.println();
}

void loop()
{
    // Look for new cards if ( !
    mfrc522.PICC_IsNewCardPresent()
    {
        return;
    }
    // Select one of the cards if ( !
    mfrc522.PICC_ReadCardSerial()
    {
        return;
    }
    //Show UID on serial monitor
    Serial.print("UID tag :");
    String content= ""; byte
    letter;

    for (byte i = 0; i < mfrc522.uid.size; i++)
    {

```

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    Serial.print(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " ");
    Serial.print(mfrc522.uid.uidByte[i],          HEX);
    content.concat(String(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " "));
    content.concat(String(mfrc522.uid.uidByte[i], HEX));
}

Serial.println();

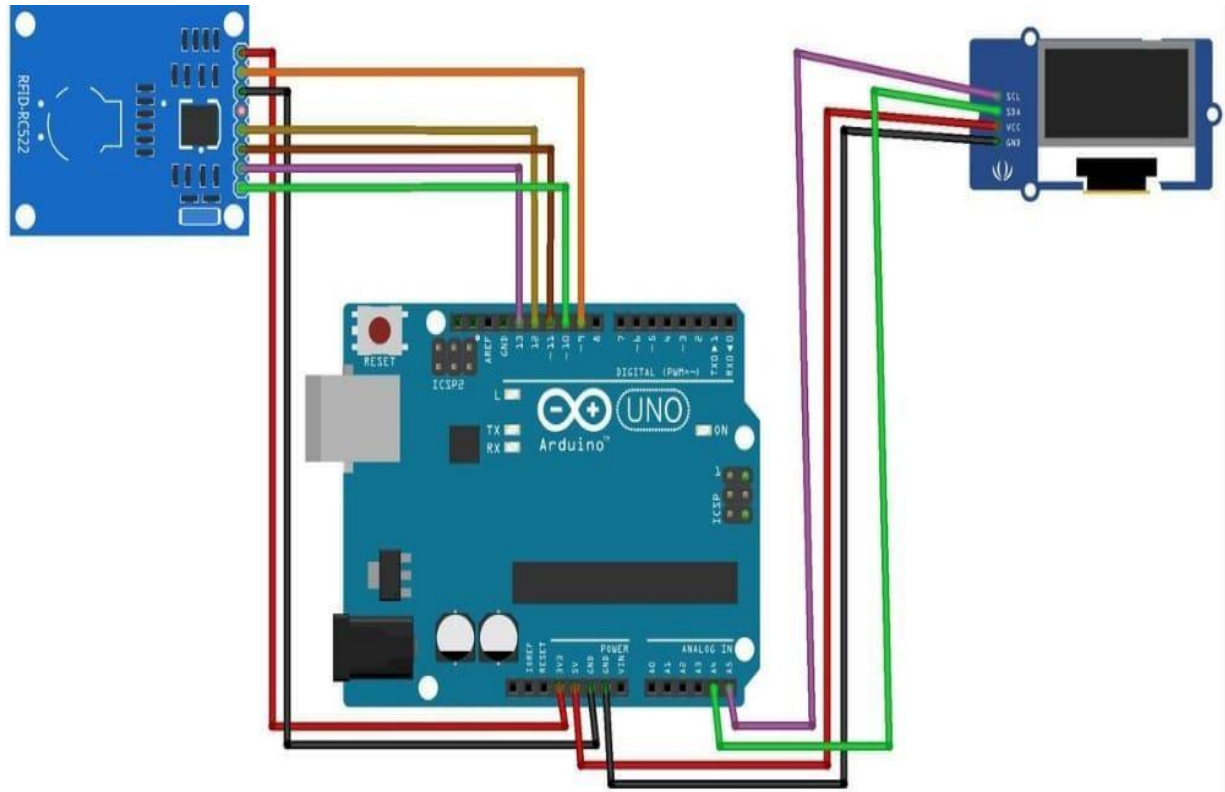
Serial.print("Message : ");
content.toUpperCase();

if (content.substring(1) == "AB CD EF GH") // enter your own card number after copying it from serial
monitor
{
    Serial.println("Authorized access");
    Serial.println();    delay(500);
    digitalWrite(RELAY, LOW);
    delay(ACCESS_DELAY);
    digitalWrite(RELAY, HIGH);
}

else {
    Serial.println(" Access denied");
    tone(BUZZER, 300);
    delay(DENIED_DELAY);    noTone(BUZZER);
}

```

}



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