Arduino Code

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\* Hello guys welcome back to "Techno-E-Solution"

\* Project Name:- RFID Based Door Lock System Using Arduino Uno & RFID RC522 Module

\* Project Video:- https://www.youtube.com/watch?v=mmF7q6Nuj6Y&t=2s

\* Here is the code for this project

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#include <Wire.h>

#include <SPI.h>

#include <MFRC522.h>

#include <LiquidCrystal\_I2C.h>

LiquidCrystal\_I2C lcd(0x27, 16, 2);

// Before uploading the code First install the above Libraries in your Arduino IDE

#define SS\_PIN 10

#define RST\_PIN 9

#define LED\_G 4 // Green LED pin

#define LED\_R 5 // Red LED pin

#define lock 3

MFRC522 mfrc522(SS\_PIN, RST\_PIN);

int Btn = 6;

void setup()

{

Serial.begin(9600);

SPI.begin();

mfrc522.PCD\_Init();

pinMode(LED\_G, OUTPUT);

pinMode(LED\_R, OUTPUT);

pinMode(Btn,INPUT);

pinMode(lock,OUTPUT);

Serial.println("Place your card on reader...");

Serial.println();

lcd.init();

lcd.backlight();

lcd.clear();

lcd.setCursor(0,0);

lcd.print(" Scan Your RFID ");

lcd.setCursor(0,1);

lcd.print(" Door Locked ");

}

void loop()

{

if(digitalRead(Btn) == HIGH){

Serial.println("Access Granted");

Serial.println();

delay(500);

digitalWrite(LED\_G, HIGH);

lcd.setCursor(0,1);

lcd.print(" Door Un-Locked ");

digitalWrite(lock,HIGH);

delay(3000);

digitalWrite(lock,LOW);

delay(100);

digitalWrite(LED\_G, LOW);

lcd.setCursor(0,1);

lcd.print(" Door Locked ");

}

// 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++)

{

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) == "6A 7F 65 B3") //change here the UID of card/cards or tag/tags that you want to give access

{

Serial.println("Access Granted");

Serial.println();

delay(500);

digitalWrite(LED\_G, HIGH);

lcd.setCursor(0,1);

lcd.print(" Door Un-Locked ");

digitalWrite(lock,HIGH);

delay(3000);

digitalWrite(lock,LOW);

delay(100);

digitalWrite(LED\_G, LOW);

lcd.setCursor(0,1);

lcd.print(" Door Locked ");

}

else

{

lcd.setCursor(0,1);

lcd.print("Invalid RFID Tag");

Serial.println(" Access denied");

digitalWrite(LED\_R, HIGH);

digitalWrite(LED\_R, LOW);

delay(100);

digitalWrite(LED\_R, HIGH);

delay(500);

digitalWrite(LED\_R, LOW);

delay(100);

digitalWrite(LED\_R, HIGH);

delay(500);

digitalWrite(LED\_R, LOW);

lcd.setCursor(0,1);

lcd.print(" Door Locked ");

}

delay (100);

}