#include <SPI.h>

#include <MFRC522.h>

#define SS\_PIN 10

#define RST\_PIN 9

#define LOCK 7

#define green 5

#define red 4

#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(LOCK,OUTPUT);

pinMode(green,OUTPUT);

pinMode(red,OUTPUT);

digitalWrite(LOCK,1);

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

Serial.println();

}

void(\* resetFunc) (void) = 0;

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++)

{

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) == "8B 09 5D 13")) //change here the UID of the card

{

digitalWrite(LOCK,0);

Serial.println("Authorized access");

digitalWrite(green,1);

Serial.println();

delay(3000);

digitalWrite(LOCK,1);

digitalWrite(green,0);

resetFunc();

}

else {

Serial.println(" Access denied");

digitalWrite(red,1);

delay(50);

digitalWrite(red,0);

delay(50);

digitalWrite(red,1);

delay(50);

digitalWrite(red,0);

delay(50);

delay(DENIED\_DELAY);

resetFunc();

}

}