Lampiran *coding* sensor RFID dan PIR.

```
#include <LiquidCrystal_I2C.h>

#include <SPI.h>
#include <MFRC522.h>

#define SS_PIN 10
#define RST_PIN 9
#define PIR 7

int relay = 6;
int flag_pir = LOW;


LiquidCrystal_I2C lcd(0x27,16,2);
MFRC522 mfrc522(SS_PIN, RST_PIN);

void setup()
{
  lcd.init();
  lcd.backlight();
  Serial.begin(9600);
  SPI.begin();
  mfrc522.PCD_Init();
  displayCodeEntryScreen();
  pinMode (PIR, INPUT);
  pinMode (relay, OUTPUT);
```

```cpp
  pinMode (relay, HIGH);
}
void displayCodeEntryScreen(){
 lcd.clear();
 lcd.setCursor(0, 1);
 lcd.print("Tempelkan ID Card");


}


void rfid(){

 if ( ! mfrc522.PICC_IsNewCardPresent())
 {
  return;
 }
 if ( ! mfrc522.PICC_ReadCardSerial())
 {
  return;
 }
// lcd.clear();
// lcd.setCursor( 0,0 );
// lcd.print("UID tag : ");
 Serial.print("UID tag :");
 String content= "";
 byte letter;
 for (byte i = 0; i < mfrc522.uid.size; i++)
 {
```

```
//   lcd.print((mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " ");

//   lcd.print((mfrc522.uid.uidByte[i], HEX);

    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) == "BD 31 15 2B") //change here the UID of the
card/cards that you want to give access

  {

    lcd.clear();

    lcd.setCursor(2,0);

    lcd.print("Akses Diterima");

    lcd.setCursor(2,1);

    lcd.print("Pintu Terbuka");

    digitalWrite(relay, LOW);

    delay(5000);

    digitalWrite(relay, HIGH);

    displayCodeEntryScreen();

  }

 else  if (content.substring(1) == "59 96 BC 16") //change here the UID of the
card/cards that you want to give access

  {

    lcd.clear();

    lcd.setCursor(2,0);

    lcd.print("Akses Diterima");
```

```
      lcd.setCursor(2,1);

      lcd.print("Pintu Terbuka");

      digitalWrite(relay, LOW);

      delay(5000);

      digitalWrite(relay, HIGH);

      displayCodeEntryScreen();

    }

    else  if (content.substring(1) == "F9 50 AD 15") //change here the UID of the
card/cards that you want to give access

    {

      lcd.clear();

      lcd.setCursor(2,0);

      lcd.print("Akses Diterima");

      lcd.setCursor(2,1);lcd.print("Pintu Terbuka");

      digitalWrite(relay, LOW);

      delay(5000);

      digitalWrite(relay, HIGH);

      displayCodeEntryScreen();

    }

    else if (content.substring(1) == "90 A9 5A A7") //change here the UID of the
card/cards that you want to give access

    {

      lcd.clear();

      lcd.setCursor(2,0);

      lcd.print("Akses Diterima");

      lcd.setCursor(2,1);

      lcd.print("Pintu Terbuka");

      digitalWrite(relay, LOW);

      delay(5000);
```

```
    digitalWrite(relay, HIGH);

    displayCodeEntryScreen();

  }
    else if (content.substring(1) == "D9 5A 12 16") //change here the UID of the
card/cards that you want to give access

  {
    lcd.clear();

    lcd.setCursor(2,0);

    lcd.print("Akses Diterima");;

    lcd.setCursor(2,1);

    lcd.print("Pintu Terbuka");

    digitalWrite(relay, LOW);

    delay(5000);

    digitalWrite(relay, HIGH);

    displayCodeEntryScreen();

  }
    else if (content.substring(1) == "A9 D5 FB 15") //change here the UID of the
card/cards that you want to give access

  {
    lcd.clear();

    lcd.setCursor(2,0);

    lcd.print("Akses Diterima");

    lcd.setCursor(2,1);

    lcd.print("Pintu Terbuka");

    digitalWrite(relay, LOW);

    delay(5000);

    digitalWrite(relay, HIGH);

    displayCodeEntryScreen();

  }
```

```
 else   {
   lcd.clear();
   lcd.setCursor(2,0);
   lcd.print("Tempel Ulang");
   lcd.setCursor(3,1);
   lcd.print("Kartu Anda");
   delay(3000);
  }
}


void loop(){
if ((digitalRead(PIR)==HIGH) && (flag_pir == LOW)){
flag_pir = HIGH;
digitalWrite(relay, LOW);
delay(3000);
}
else if ((digitalRead(PIR)== LOW) && (flag_pir == HIGH)){
flag_pir = LOW;
digitalWrite(relay, HIGH);
}
rfid();
}
```