LAMPIRAN

Lampiran 1

Program Arduino Mega 2560

```
include <Adafruit_Fingerprint.h>
include <EEPROM.h>
Adafruit_Fingerprint finger = Adafruit_Fingerprint(&mySerial);
int tombol1 = A2;
int tombol2 = A3;
int magnet_sensor = 10;
int sensorpir = 4 ;
int piraktif = 1;
int relay1 = 8;
int eadd = 0;
byte sensorsentuh = 9;
int nilaisensor;
int nilaisensormagnet;
int nilaisensorpir;
int led = 11;
int led2 = 12;
int buzzer = 7;
int getFingerprintIDez();
void setup() {
  Serial.begin(9600);
  Serial2.begin(115200);
  eadd = EEPROM.read(0);
  if (eadd > 200)EEPROM.write(0, 0);
eadd = EEPROM.read(0);
  if (eadd > 200)EEPROM.write(0, 0);
  pinMode(relay1, OUTPUT);
  pinMode(magnet_sensor, INPUT_PULLUP);
  digitalWrite(relay1, HIGH);
```

```
  pinMode (led,OUTPUT);
  digitalWrite (led,LOW);
  pinMode (led2,OUTPUT);
  digitalWrite (led2,LOW);
  pinMode(buzzer, OUTPUT);
  digitalWrite (buzzer,LOW);
  pinMode(sensorsentuh, INPUT);
  pinMode(sensorpir, INPUT);
  finger.begin(57600);
  if (finger.verifyPassword)
  eadd = EEPROM.read(0);
  Serial.println(eadd);
}
void loop() {
  nilaisensor = digitalRead(sensorsentuh);
  nilaisensormagnet = digitalRead(magnet_sensor);
  nilaisensorpir = digitalRead(sensorpir);
  if(digitalRead(tombol2)==0)digitalWrite(buzzer,LOW);
  if (nilaisensormagnet == 0)

  if (nilaisensormagnet == 1 && tandafinger == 0 && lock_time == 0 &&
lock_force == 0) {
  Serial2.println("A");
  digitalWrite(buzzer,HIGH)
  }
  if(piraktif==1&&nilaisensorpir==1){
  Serial2.println("B");
  delay (4000);
  }
  if(Serial2.available()){
    char c = Serial2.read()
    if(c == 'A') {
```

```
   piraktif=1;
  }
  if(c == 'B') {
   piraktif=0;
  }
  if(c == 'C') {
tandafinger= 1;
digitalWrite(relay1, LOW);
digitalWrite(led2,HIGH);
delay (8000);
digitalWrite(relay1, HIGH);
digitalWrite(led2,LOW);
  }
  if(c == 'D') {
   digitalWrite(buzzer,LOW);
  }
 if (!digitalRead(tombol1)) {
  delay(1000);
  if (!digitalRead(tombol1)) {
   finger.emptyDatabase();
   eadd = 0;
   EEPROM.write(0, eadd);
   digitalWrite(buzzer,HIGH);
   digitalWrite(led,HIGH);
   delay(2000);
   digitalWrite(buzzer,LOW);
   digitalWrite(led,LOW);
  }
  if (eadd > 50)eadd = 0;
  EEPROM.write(0, eadd);
  getFingerprintEnroll(eadd);
  eadd = EEPROM.read(0);
```

```
 }
  if (nilaisensor == 1) {
  tandafinger= 1;
  Serial2.println("E");
  digitalWrite(relay1, LOW);
  digitalWrite(led2,HIGH);
  delay(8000);
  digitalWrite(relay1, HIGH);
  digitalWrite(led2,LOW);
 }
int getFingerprintIDez() {
uint8_t p = finger.getImage();
if (p != FINGERPRINT_OK)  return -1;
p = finger.image2Tz();
if (p != FINGERPRINT_OK)  return -1;
p = finger.fingerFastSearch();
if (p != FINGERPRINT_OK)
  }
Serial2.println("G");
digitalWrite(relay1, LOW);
digitalWrite(led2,HIGH);
delay (8000);
digitalWrite(relay1, HIGH);
digitalWrite(led2,LOW);
  }
}
```

Program ESP32-CAM

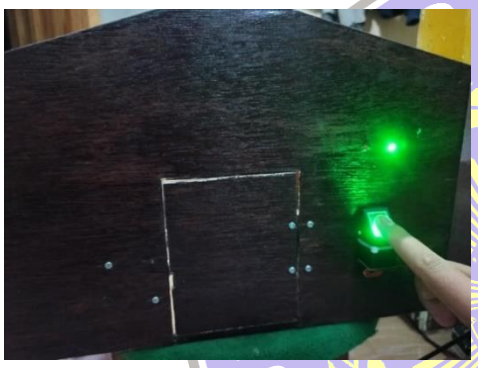
```
#include "CTBot.h"
CTBot myBot;
String ssid  = "MyWifi";
String pass  = "1234567890";
```

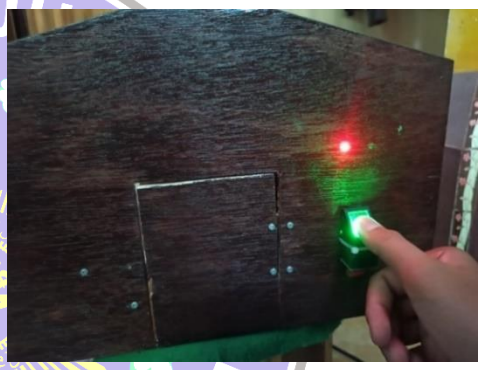
```
String token = "token";
unsigned long id = ********; //id Telegram
#include "esp_camera.h"
#include "esp_timer.h"
#include "img_converters.h"
#include "Arduino.h"
#include "fb_gfx.h"
#include "fd_forward.h"
#include "fr_forward.h"
#include "SD_MMC.h"
#include "soc/soc.h"
#include "soc/rtc_cntl_reg.h"
#include "driver/rtc_io.h"
RTC_DATA_ATTR int bootCount = 0;
#define PWDN_GPIO_NUM     32
#define RESET_GPIO_NUM    -1
#define SIOD_GPIO_NUM     26
#define SIOC_GPIO_NUM     27
#define Y9_GPIO_NUM       35
#define Y8_GPIO_NUM       34
#define Y7_GPIO_NUM       39
#define Y6_GPIO_NUM       36
#define Y5_GPIO_NUM       21
#define Y4_GPIO_NUM       19
#define Y3_GPIO_NUM       18
#define Y2_GPIO_NUM        5
#define VSYNC_GPIO_NUM    25
#define HREF_GPIO_NUM     23
#define PCLK_GPIO_NUM     22
void take_foto(String filename){
  camera_fb_t * fb = NULL;
  fb = esp_camera_fb_get();
```

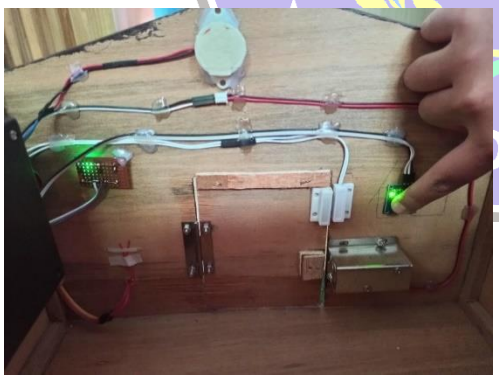
```
  }
    if(!SD_MMC.begin()){
     }
   fs::FS &fs = SD_MMC;
   File file = fs.open(path.c_str(), FILEWRITE);
  else {
    file.write(fb->buf, fb->len);
  }
void setup() {
    if(psramFound()){
    config.frame_size = FRAMESIZE_UXGA;
    config.jpeg_quality = 10;
  } else {
    config.frame_size = FRAMESIZE_SVGA;
    config.jpeg_quality = 12;
    camera_config_t config;
}
void loop() {
  Serial.println(msg.sender.id);
  if (msg.text.equalsIgnoreCase("/piron")&&msg.sender.id==id){
      Serial.println("A");
      myBot.sendMessage(id, "Pir Aktif");
      }
      if (msg.text.equalsIgnoreCase("/piroff")&&msg.sender.id==id){
      Serial.println("B");
      myBot.sendMessage(id, "Pir Tidak Aktif");
      }
      if (msg.text.equalsIgnoreCase("/buka")&&msg.sender.id==id){
      Serial.println("C");
      myBot.sendMessage(id, "Akses dibuka dengan telegram");
   }
if(c=='A')myBot.sendMessage(id,msg.text +"Warning!! Pintu Dibuka Paksa! ");
```

```
if(c=='B') {myBot.sendMessage(id, msg.text + "Terdeteksi gerakan didalam rumah!");
if(c=='E') myBot.sendMessage(id, msg.text + "Akses dibuka dari dalam Rumah");
if(c=='F') myBot.sendMessage(id, msg.text + "Waspada!! ada seseorang mencoba akses pintu dengan sidik jari tidak terdaftar, akses pintu gagal!");
if(c=='G') myBot.sendMessage(id, msg.text + "Akses dibuka Dengan Sidik Jari valid");
 }
}
```

Lampiran 2








/buka 12:46
Akses dibuka dengan telegram 12:46
/piroff 12:46
Pir Tidak Aktif 12:46
/piron 12:46
Pir Aktif 12:46
WARNING!! Pintu Dibuka Paksa! Segera lakukan tindakan 12:46
/alarmoff 12:46
Alarm Dimatikan 12:46
/foto 12:46
Foto berhasil, foto tersimpan di SD card 12:47