

1. masuk.py

```
import numpy as np
import cv2
import serial
import time

cap = cv2.VideoCapture(0)
ser=serial.Serial("/dev/ttyACM0",9600)
line=""
while(True) :
    ret , frame = cap.read()
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    cv2.imshow('frame',frame)
    if (ser.in_waiting > 0):
        line = ser.readline()
        print(line)
        if (line==b 'xon\r\n'):
            namafile= str(time.strftime("/home/pi/portal_masuk/%d_%b_%Y # %H_%M_%S))+'.jpg'

    if cv2.waitKey(1) & 0xFF == ord('q'):
        cap.release()
        cv2.destroyAllWindows()
```

2. keluar.py

```
import numpy as np
import cv2
import serial
import time

cap = cv2.VideoCapture(0)
ser=serial.Serial("/dev/ttyACM0",9600)
line=""
while(True) :
    ret , frame = cap.read()
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    cv2.imshow('frame',frame)
    if (ser.in_waiting > 0):
        line = ser.readline()
        print(line)
        if (line==b 'xon\r\n'):
            namafile= str(time.strftime("/home/pi/portal_keluar/%d_%b_%Y # %H_%M_%S))+'.jpg'

    if cv2.waitKey(1) & 0xFF == ord('q'):
        cap.release()
        cv2.destroyAllWindows()
```

3. master (Portal Keluar)

```
#include <SoftwareSerial.h>
#include <UIPEthernet.h>
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#include <Keypad.h>
#define BINTANG 42
#define PAGAR 35

const byte ROWS = 4; //four rows
const byte COLS = 3; //three columns
char keys[ROWS][COLS] = {
  {'1', '2', '3'},
  {'4', '5', '6'},
  {'7', '8', '9'},
  {'*', '0', '#'}
};
byte rowPins[ROWS] = {5, 6, 7, 8};
byte colPins[COLS] = {2, 3, 4};
Keypad keypad = Keypad( makeKeymap(keys), rowPins, colPins, ROWS,
COLS );
LiquidCrystal_I2C lcd(0x27, 16, 2);
long dtKey = 0;
String pesan = "";
byte mac[] = { 0x54, 0x34, 0x41, 0x30, 0x30, 0x31 };
EthernetClient client;
char server[] = "192.168.1.1"; // IP Adres (or name) of server to dump data to
int interval = 5000; // Wait between dumps
IPAddress ip(192, 168, 1, 2);

void setup() {
```

```
Serial.begin(9600);  
lcd.begin();  
lcd.backlight();  
lcd.setCursor(2, 0);  
lcd.print("Haiii");  
lcd.setCursor(2, 1);  
lcd.print("Input No. Induk/NIDN");
```

```
Ethernet.begin(mac, ip);  
Serial.println("=====\n");  
Serial.print("IP Address   : ");  
Serial.println(Ethernet.localIP());  
Serial.print("Subnet Mask   : ");  
Serial.println(Ethernet.subnetMask());  
Serial.print("Default Gateway IP: ");  
Serial.println(Ethernet.gatewayIP());  
Serial.print("DNS Server IP   : ");  
Serial.println(Ethernet.dnsServerIP());  
}  
void loop() {  
  char key = keypad.getKey();  
  Serial.print(key);  
  if (key) {  
    lcd.clear();  
    if ( key == PAGAR) {  
      Serial.println("");  
      Serial.println(pesan);  
      Serial.println("on");  
      lcd.clear();  
      lcd.setCursor(1, 0);  
      dtKey = 0;
```

```

lcd.setCursor(0, 0);
lcd.print("Akses Berhasil");
delay(1500);
lcd.clear();

if (client.connect(server, 80)) {
  Serial.println("-> Connected");
  client.print("GET /parking2/ethernet/insert2.php?");
  client.print("STNK=");
  client.print(pesan);
  client.print(" HTTP/1.1\r\nHost: host\r\nConnection: keep-alive\r\nAccept:
*/*\r\n\r\n");
  delay(3000);
}
pesan = "";

}
else if (key == BINTANG) {
  lcd.clear();
  dtKey = 0;
  STOP();
  pesan = "";
}
else {
  lcd.clear();
  dtKey = dtKey * 10 + key;
  pesan = pesan + key;
  lcd.print(pesan);
  STOP();
}
}}

```

4. Receiver (Portal Masuk)

```
#include <UIPEthernet.h> // Used for Ethernet
#include <SoftwareSerial.h>
SoftwareSerial serial(10, 11); // RX, TX
float sinVal;
int toneVal = 12;
char message;
String idcard = "";
String x;
int trigger1 = 14;
int echo1 = 15;
String teks1 = "";
String teks2 = "";

long duration1, distance1, pulse1;

byte mac[] = { 0x54, 0x34, 0x41, 0x30, 0x30, 0x31 };

EthernetClient client;
char server[] = "192.168.1.1"; // IP Adres (or name) of server to dump data
to
int interval = 5000; // Wait between dumps
IPAddress ip(192, 168, 1, 2);

#define MOTOR_A1_PIN 9
#define MOTOR_B1_PIN 8
#define PWM_MOTOR_1 7
#define MOTOR_A2_PIN 6
#define MOTOR_B2_PIN 5
#define PWM_MOTOR_2 4
```

```

void setup() {
  pinMode(12, OUTPUT);
  Serial.begin(9600);
  serial.begin(9600);
  Ethernet.begin(mac, ip);
  Serial.println("-----\n");
  Serial.print("IP Address   : ");
  Serial.println(Ethernet.localIP());
  Serial.print("Subnet Mask   : ");
  Serial.println(Ethernet.subnetMask());
  Serial.print("Default Gateway IP: ");
  Serial.println(Ethernet.gatewayIP());
  Serial.print("DNS Server IP   : ");
  Serial.println(Ethernet.dnsServerIP());
}

```

```

void loop() {
  for (int x = 0; x < 90; x++)
  {
    sinVal = (sin(x * (3.1412 / 90)));
    toneVal = 2000 + (int (sinVal * 1000));
  }
  if (serial.available())
  {
    message = serial.read();
    idcard = idcard + message;
  }

  if (message == 'x')
  {

```

```
teks1 = idcard.substring(1, 10);  
teks2 = idcard.substring(11);  
Serial.print("ID : ");  
Serial.println(teks1);  
Serial.print(teks2);
```

```
tone(12, toneVal);  
delay(200);  
noTone(12);  
Serial.println("on");
```

```
idcard = "";  
message = "";  
teks1 = "";  
teks2 = "";  
}  
}
```


LAMPIRAN