

L A M P I R A N

LISTING PROGRAM

```
#include <SoftwareSerial.h>
#define relay 7
#define relai 11
#define push 8
int kondisipush = 0;
SoftwareSerial mySerial(2, 3);
const int pTrig = 9;
const int pEcho = 10;
void setup() {
  pinMode(relay,OUTPUT);
  pinMode(relai,OUTPUT);
  pinMode(push,INPUT_PULLUP);
  Serial.begin(9600);
  while (!Serial) {
    ; // wait for serial port to connect. Needed for Leonardo only
  }
  Serial.println("Goodnight moon!");
  // set the data rate for the SoftwareSerial port
  mySerial.begin(9600);
  pinMode(pTrig, OUTPUT);
  pinMode(pEcho, INPUT);
}
long durasi = 0;
double jarak = 0;
int status_mesin= 0;
void loop() {
  kondisipush = digitalRead(push);
  if (kondisipush == LOW){digitalWrite(relai,0);
  digitalWrite(relay,1);
}
  else{
    digitalWrite(relai,1);
    digitalWrite(pTrig, HIGH);
  delayMicroseconds(10);
  digitalWrite(pTrig, LOW);
  int data_warna = analogRead(A0);
  durasi = pulseIn(pEcho, HIGH);
  jarak = (durasi *0.034)/2;
  //
  //
  if ( jarak > 18 && data_warna > 450)
  {
    digitalWrite(relay,0);
    digitalWrite(relai,1);
    status_mesin=1;
  }
  else if ( jarak > 18 && data_warna < 450)
  {
    digitalWrite(relay,1);
    digitalWrite(relai,1);
  }
}
```

```
delay(2000);
digitalWrite(relay,0);
digitalWrite(relai,0);
delay(10000);
status_mesin=0;
}
else if ( jarak < 5.9)
{
digitalWrite(relay,1);
digitalWrite(relai,1);
status_mesin=0;
}
mySerial.print(jarak);
Serial.println(jarak);
mySerial.print(";");
//delay(1000);
mySerial.print(data_warna);
Serial.println(data_warna);
mySerial.print(";");
//delay(1000);
mySerial.println(status_mesin);
Serial.println(status_mesin);
mySerial.println(";");
delay(500);
}
// put your main code here, to run repeatedly:
}
```