

Lampiran A

Program robot

```
int motorPin1 = 2;
int motorPin2 = 3;
int motorPin3 = 4;
int motorPin4 = 7;
int motorPin5 = 8;
int motorPin6 = 9;           /*variabel untuk pin*/
int motorPin7 = 12;
int motorPin8 = 13;
int enable1  = 5;
int enable2  = 6;
int enable3  = 10;
int enable4  = 11;

int v = 255;
char val;

void setup() {
  pinMode(motorPin1, OUTPUT);
  pinMode(motorPin2, OUTPUT);
  pinMode(motorPin3, OUTPUT);
  pinMode(motorPin4, OUTPUT);
  pinMode(motorPin5, OUTPUT);
  pinMode(motorPin6, OUTPUT);
  pinMode(motorPin7, OUTPUT);
  pinMode(motorPin8, OUTPUT);
  pinMode(enable1, OUTPUT);
  pinMode(enable2, OUTPUT); /*insialisasi pin sebagai output*/
  pinMode(enable3, OUTPUT);
  pinMode(enable4, OUTPUT);

  analogWrite(enable1,v);
  analogWrite(enable2,v);   /*beri nilai pwm pada pin enable*/
  analogWrite(enable3,v);
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analogWrite(enable4,v);
Serial.begin(9600);    /*buka port serial untuk komunikasi serial
Serial.print("speed = ");    dengan baud rate 9600*/
Serial.println(v);      /*kirim data ke serial port*/
}

void loop() {
  if(Serial.available())    /*deteksi data dari serial port*/
  {
    val = Serial.read();    /*menerima data dari serial port*/
  }
  if(val == 'r')
  {
    v = v + 1;              /*jika data 'r' tambah nilai v dan beri nilai
    analogWrite(A0,v);      pwm pada pin sesuai dengan nilai v*/
    analogWrite(A1,v);
    analogWrite(A2,v);
    analogWrite(A3,v);
    Serial.print("speed = ");
    Serial.println(v);
  }
  if(val == 'f')
  {
    v = v - 1;             /*jika data 'f' kurangi nilai v dan beri nilai
    analogWrite(A0,v);      pwm pada pin sesuai dengan nilai v*/
    analogWrite(A1,v);
    analogWrite(A2,v);
    analogWrite(A3,v);
    Serial.print("speed = ");
    Serial.println(v);
  }
  if(val == 'a')
  {
    digitalWrite(motorPin1, HIGH);
    digitalWrite(motorPin2, LOW);    /*jika data 'a' beri nilai HIGH
    digitalWrite(motorPin3, HIGH);    pada motor pin 1,3,6,8 dan
    digitalWrite(motorPin4, LOW);     nilai low pada motor pin 2,4,5

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digitalWrite(motorPin5, LOW);    ,7*/
digitalWrite(motorPin6, HIGH);
digitalWrite(motorPin7, LOW);
digitalWrite(motorPin8, HIGH);
} else if(val == 'd')
{
digitalWrite(motorPin1, LOW);
digitalWrite(motorPin2, HIGH);  /*jika data 'd' beri nilai HIGH
digitalWrite(motorPin3, LOW);   pada motor pin 2,4,5,7 dan
digitalWrite(motorPin4, HIGH);  nilai LOW pada pin 1,3,6,8*/
digitalWrite(motorPin5, HIGH);
digitalWrite(motorPin6, LOW);
digitalWrite(motorPin7, HIGH);
digitalWrite(motorPin8, LOW);
}
else if(val == 'w')
{
digitalWrite(motorPin1, LOW);
digitalWrite(motorPin2, HIGH);
digitalWrite(motorPin3, HIGH);
digitalWrite(motorPin4, LOW);
digitalWrite(motorPin5, HIGH);
digitalWrite(motorPin6, LOW);
digitalWrite(motorPin7, LOW);
digitalWrite(motorPin8, HIGH);
} else if(val == 'x')
{
digitalWrite(motorPin1, LOW);
digitalWrite(motorPin2, LOW);
digitalWrite(motorPin3, LOW);
digitalWrite(motorPin4, LOW);
digitalWrite(motorPin5, LOW);
digitalWrite(motorPin6, LOW);
digitalWrite(motorPin7, LOW);
digitalWrite(motorPin8, LOW);
} else if(val == 's')
{

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```
digitalWrite(motorPin1, HIGH);  
digitalWrite(motorPin2, LOW);  
digitalWrite(motorPin3, LOW);  
digitalWrite(motorPin4, HIGH);  
digitalWrite(motorPin5, LOW);  
digitalWrite(motorPin6, HIGH);  
digitalWrite(motorPin7, HIGH);  
digitalWrite(motorPin8, LOW);  
}  
}
```