

```
void pick_timbangan(){
    servo1.write(100);
    servo2.write(80);//capit besar nutup
    servo3.write(100);//di belakang capit besar naik
    servo4.write(180);// servo bawah // tinggi naik
    delay(600);
    maju(100,100);
    delay(300);
    berhenti();
    delay(300);
    servo2.write(160);
    delay(300);
    servo3.write(110);
    delay(300);
    mundur(100,100);
    delay(500);
    berhenti();
}
void hold1()
{
    servo1.write(100);
    servo2.write(80);//capit besar nutup
    servo3.write(100);//di belakang capit besar naik
    servo4.write(180);// servo bawah // tinggi naik
}

void hold()
```

```
{  
  servo1.write(100);  
  servo2.write(120);  
  servo3.write(80);  
  servo4.write(180);  
}
```

void drop()

```
{  
  servo1.write(80);  
  servo2.write(80); //capit besar nutup  
  servo3.write(150); //di belakang capit besar naik  
  servo4.write(140); // servo bawah // tinggi naik  
}
```

void linesensor()

```
{  
  int sp;  
  sp=300;  
  if (analogRead(0)<=sp) {s1=1;} else {s1=0;}  
  if (analogRead(1)<=sp) {s2=1;} else {s2=0;}  
  if (analogRead(2)<=sp) {s3=1;} else {s3=0;}  
  if (analogRead(3)<=sp) {s4=1;} else {s4=0;}  
  if (analogRead(4)<=sp) {s5=1;} else {s5=0;}  
  
  sensor_data=(s5*1)+(s4*2)+(s3*4)+(s2*8)+(s1*16);  
  sensor_data&=0b11111;
```

```
// Serial.print(15);
// Serial.print(" ");
// Serial.print(14);
// Serial.print(" ");
// Serial.print(13);
// Serial.print(" ");
// Serial.print(12);
// Serial.print(" ");
// Serial.print(11);
// Serial.println('\t');
Serial.println(sensor_data);
Serial.print(analogRead(0));
Serial.print(" ");
Serial.print(analogRead(1));
Serial.print(" ");
Serial.print(analogRead(2));
Serial.print(" ");
Serial.print(analogRead(3));
Serial.print(" ");
Serial.print(analogRead(4));
Serial.println('\t');
}
```

```
void linefollowing()
{
  linesensor();
  switch(sensor_data)
  {
```

```

case 0b00001: l=0; r=1; maju(255,0); break;
case 0b00111: l=0; r=1; kanan(170,160); break;
case 0b00011: l=0; r=1; kanan(170,120); break;
case 0b00010: l=0; r=1; maju(160,120); break;
case 0b00110: l=0; r=1; maju(155,145); break;

case 0b00100: l=1; r=1; maju(150,150); break;

case 0b01100: l=1; r=0; maju(145,155); break;
case 0b01000: l=1; r=0; maju(120,160); break;
case 0b11000: l=1; r=0; kiri(120,160); break;
case 0b11100: l=1; r=0; kiri(160,170); break;
case 0b10000: l=1; r=0; maju(0,200); break;

case 0b11111:
    if (i==1 && counter==0) {maju(130,130); delay(50);
kiri(120,200); delay(500); do{kiri(150,150);} while (analogRead(A0) > 500 &&
analogRead(A1) > 500); counter=1; break;}

    else if (i==4 && counter==0) {maju(130,130); delay(50);
kiri(120,200); delay(500); do{kiri(150,150);} while (analogRead(A0) > 500 &&
analogRead(A1) > 500); counter=1; break;}

    else if (i==7 && counter==0) {maju(130,130); delay(50);
kiri(120,200); delay(500); do{kiri(150,150);} while (analogRead(A0) > 500 &&
analogRead(A1) > 500); counter=1; break;}

    else if (i==2 && counter==0) {maju(180,150); delay(200);
counter=1; break;}

    else if (i==5 && counter==0) {maju(180,150); delay(200);
counter=1; break;}

    else if (i==8 && counter==0) {maju(180,150); delay(200);
counter=1; break;}

```



```

        kiri(220,220); delay(400);
        do{kiri(200,200);}while(analogRead(A0) > 500
&& analogRead(A1) > 500);
        counter=2; break;
    }

    if (i==1 && counter==2) {kanan(220,120); delay(600);
do{kanan(150,150);} while (analogRead(A2) > 500); counter=3; break;}

        else if (i==4 && counter==2) {kanan(220,120); delay(600);
do{kanan(150,150);} while (analogRead(A2) > 500); counter=3; break;}

        else if (i==7 && counter==2) {kanan(220,120); delay(600);
do{kanan(150,150);} while (analogRead(A2) > 500); counter=3; break;}

        else if (i==2 && counter==2) {maju(180,150); delay(200);
counter=3; break;}

        else if (i==5 && counter==2) {maju(180,150); delay(200);
counter=3; break;}

        else if (i==8 && counter==2) {maju(180,150); delay(200);
counter=3; break;}

        else if (i==3 && counter==2) {kiri(120,200); delay(600);
do{kiri(150,150);} while (analogRead(A2) > 500); counter=3; break;}

        else if (i==6 && counter==2) {kiri(120,200); delay(600);
do{kiri(150,150);} while (analogRead(A2) > 500); counter=3; break;}

        else if (i==9 && counter==2) {kiri(120,200); delay(600);
do{kiri(150,150);} while (analogRead(A2) > 500); counter=3; break;}

    if (i>=1 && i<=3 && counter==3)
        {
            mundur(150,150); delay(300);
            berhenti(); delay(500);
            resetFunc(); break;
        }

    else if (i>=4 && i<=6 && counter==3)
        {
            mundur(150,150); delay(300);

```

```

        berhenti();    delay(500);
        resetFunc();   break;
    }
    else if (i>=7 && i<=9 && counter==3)
    {
        mundur(150,150); delay(300);
        berhenti();    delay(500);
        resetFunc();   break;
    }

    case 0b00000: if (l==0 && r==1) {kanan(230,230); break;}
                 else if (l==1 && r==0) {kiri(230,230); break;}
    }
}

void loop()
{
    // drop();
    // pick_timbangan(); delay(10000);
    hold1(); //delay(1000);
    s = hc11.read();
    //pick();
    //Serial.println(analogRead(A0));
    berhenti();
    //maju(150,150);
    i=counter=0;
    if (s=='1')
    {

```

```

        i=1; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }
else if (s=='2')
    {
        i=2; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }
else if (s=='3')
    {
        i=3; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }

else if (s=='4')
    {
        i=4; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);

```



```
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }
else if (s=='5')
    {
        i=5; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }
else if (s=='6')
    {
        i=6; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }
else if (s=='7')
    {
        i=7; counter=0;
        pick_timbangan();
        kiri(250,250);    delay(500);
        do{kiri(150,150);} while (analogRead(A2) > 500);
        while(1) {linefollowing();}
    }
}
```

```
else if (s=='8')
{
    i=8; counter=0;
    pick_timbangan();
    kiri(250,250);    delay(500);
    do{kiri(150,150);} while (analogRead(A2) > 500);
    while(1) {linefollowing();}

}
```

```
else if (s=='9')
{
    i=9; counter=0;
    pick_timbangan();
    kiri(250,250);    delay(500);
    do{kiri(150,150);} while (analogRead(A2) > 500);
    while(1) {linefollowing();}

}

}
```

```
void loop() {

Serial.println(digitalRead(10));
//Serial.println(digitalRead(11));
//Serial.println(digitalRead(12));
```

```

int tombol_menu = digitalRead(9);
if (tombol_menu == LOW){
    mode = mode+1;
    if(mode>=4){
        mode=0;
    }
    Serial.println(mode);
    delay(1000);
    lcd.clear();
}
// delay(100);
// lcd.clear();

if (mode==0){
// Serial.println(hc11.read());
// lcd.setCursor(15,1);
// lcd.print(hc11.read());
    lcd.setCursor(0,0);
    lcd.print("Pilih Mode Kerja");
    lcd.setCursor(0,1);
    lcd.print("      ");
}
if (mode==1){
    lcd.setCursor(0,0);
    lcd.print("-> Mode      ");
    lcd.setCursor(0,1);
    lcd.print("  Antar Makanan");
    if (digitalRead(10)==LOW){delay(300); hc11.write('1');}
}

```

```

    if (digitalRead(11)==LOW){delay(300); hc11.write('2');}
    if (digitalRead(12)==LOW){delay(300); hc11.write('3');}
}
if (mode==2){
    lcd.setCursor(0,0);
    lcd.print("-> Mode      ");
    lcd.setCursor(0,1);
    lcd.print("  Ambil Sampah ");
    if (digitalRead(10)==LOW){delay(300); hc11.write('4');}
    if (digitalRead(11)==LOW){delay(300); hc11.write('5');}
    if (digitalRead(12)==LOW){delay(300); hc11.write('6');}
}
if (mode==3){
//  lcd.setCursor(0,0);
//  lcd.print("-> Mode");
    lcd.setCursor(0,1);
    lcd.print("  Penimbangan ");
    timbang();
    if (berat<=50 && digitalRead(8)==LOW)          {delay(300);
hc11.write('7');}
    if (berat>50 && berat<=100 && digitalRead(8)==LOW) {delay(300);
hc11.write('8');}
    if (berat>100 && digitalRead(8)==LOW)          {delay(300);
hc11.write('9');}
}
}

```