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LAMPIRAN-LAMPIRAN

1. Kontroller PID

Hexapod	PID_WallFollower	inverse_kinematic	sensor_tegangan
49	// jarakl = jarak sebelumnya		
50	// }		
51	error = sp - jarakl;		
52	Kontrol_P = kp * error;		
53	//Serial.print(" Kontrol_P.I.D: ");		
54	//Serial.print(" Kontrol_P: ");		
55	//Serial.print(Kontrol_P);		
56	//Serial.print(" Kontrol_I: ");		
57	Jumlah_error = Jumlah_error + error ; //kitotal += error		
58	Kontrol_I = ki * Jumlah_error;		
59	//Serial.print(Kontrol_I);		
60	//Serial.print(" Kontrol_D: ");		
61	//Serial.print(Kontrol_D);		
62	Selisih_error = error - PV_sebelumnya;		
63	Kontrol_D = kd * Selisih_error;		
64	PV_sebelumnya = error ;		
65	if (jarakl = 37){		
66	Kontrol_P = 0;		
67	Kontrol_I = 0 ;		
68	Kontrol_D = 0;		
69	}		
70	//else if (jarakl < 37){		
71	// jarakl = jarakl; }		
72	Kontrol_PID = Kontrol_P + Kontrol_I + Kontrol_D;		
73	//nkp = 0;		
74	PID = Kontrol_PID/10;		
75	//Serial.print("PID: ");		
76	//Serial.print(PID);		
77	if (PID >=0.63){		
78	PID = 0.63;		

2. Konstanta PID

```
Hexapod PID_WallF
1 // variabel untu
2 float sp = 37;
3 float kp = 45; /
4 float ki = 0.2;
5 float kd = 16 ,
6 float Jumlah_err
```

3. Pembacaan Sensor

```
97 // jarak 1
98 digitalWrite(trig_pin1, HIGH);
99 delayMicroseconds(10);
100 digitalWrite(trig_pin1, LOW);
101 echotime= pulseIn(echo_pin1, HIGH);
102 Jarak1= 0.0001*((float)echotime*340.0)/2.0;
103 // Tampilan Jarak 1
104 Serial.print("Jarak1: ");
105 Serial.print(Jarak1);
106 Serial.print(" cm");
107 // jarak 2
108 digitalWrite(trig_pin2, HIGH);
109 delayMicroseconds(10);
110 digitalWrite(trig_pin2, LOW);
111 echotime= pulseIn(echo_pin2, HIGH);
112 Jarak2= 0.0001*((float)echotime*340.0)/2.0;
113 // Tampilan Jarak 2
114 Serial.print("Jarak2: ");
115 Serial.print(Jarak2);
116 Serial.print(" cm");
117 // jarak 3
118 digitalWrite(trig_pin3, HIGH);
119 delayMicroseconds(10);
120 digitalWrite(trig_pin3, LOW);
121 echotime= pulseIn(echo_pin3, HIGH);
122 Jarak3= 0.0001*((float)echotime*340.0)/2.0;
123 // Tampilan Jarak 3
124 Serial.print("Jarak3: ");
125 Serial.print(Jarak3);
126 Serial.print(" cm");
```