

```

<a name="home"></a><br />
<div style="text-align: center;">
<a href="#">[KEMBALI KE MENU SEBELUMNYA]</a></div>
<br />
<center>
<div style="background-color: white; border: 2px dashed rgb(23, 128, 221); height: 240px; overflow:
auto; padding: 10px; text-align: center; width: 330px;">
<b>DAFTAR ISI</b>
<br />
<div style="text-align: left;">
<a href="#prosedur">1. Prosedur</a></div>
<div style="text-align: left;">
<a href="#hardware dan diagram">2. Hardware dan diagram blok</a></div>
<div style="text-align: left;">
<a href="#rangkaian dan prinsip">3. Rangkaian simulasi dan prinsip kerja</a></div>
<div style="text-align: left;">
<a href="#flowchart">4. Flowchart dan listing program</a></div>
<div style="text-align: left;">
<a href="#kondisi">5. Kondisi</a></div>
<div style="text-align: left;">
<a href="#video">6. Video simulasi</a></div>
<div style="text-align: left;">
<a href="#link">7. Link Download</a></div>
<div style="text-align: left;">
</div>
</div>
</center>
<span style="font-family: &quot;times&quot; , &quot;times new roman&quot; , serif;"><span
style="font-family: &quot;times&quot; , &quot;times new roman&quot; , serif;"><b><div
style="font-size: medium;"><span style="font-family: &quot;times&quot; , &quot;times new
roman&quot; , serif;"><span style="font-family: &quot;times&quot; , &quot;times new roman&quot;
, serif; font-size: small;"><b><br /></b></span></span></div><span style="font-size: medium;"><div
style="text-align: center;"><br /></div><div style="color: #990000;"><span style="font-family:

```


class="separator" style="clear: both; text-align: center; "></div></div>
<div>3. Push Button</div><div class="separator" style="clear: both; text-align: center; "></div></div><div class="separator" style="clear: both; text-align: center; ">
</div><div class="separator" style="clear: both; text-align: left; ">4. ULN2003Q</div><div class="separator" style="clear: both; text-align: center; "></div>
<div class="separator" style="clear: both; text-align: center; ">
</div><div>Diagram Blok</div><div class="separator" style="clear: both; text-align: center; "></div><div class="separator" style="clear: both; text-align: center; ">
</div></div><div>

3. Rangkaian simulasi dan prinsip kerja

[](#)

[\[Kembali\]</div><div><div><div class="separator" style="clear: both; text-align: left;">
</div></div><div class="separator" style="clear: both; text-align: left;"><div class="separator" style="clear: both; text-align: justify;">Rangkaian percobaan sebelum disimulasi</div><div class="separator" style="clear: both; text-align: justify;">
</div><div class="separator" style="clear: both; text-align: center;"></div><div class="separator" style="clear: both; text-align: center;">
</div><div class="separator" style="clear: both; text-align: justify;">Rangkaian percobaan setelah disimulasi</div><div class="separator" style="clear: both; text-align: center;">
</div><div class="separator" style="clear: both; text-align: center;"></div><div class="separator" style="clear: both; text-align: center;"><br style="font-family: times; font-size: large;" /></div><div class="separator" style="clear: both; text-align: left;">Prinsip Kerja</div><div class="separator" style="clear: both; text-align: left;">
</div><div class="separator" style="clear: both; text-align: left;">Pertama defenisikan dahulu konstanta pin ke arduino, a sebagai pin 8, b sebagai pin 9, c sebagai pin 10 dan seterusnya. Kemudian mulai komunikasi serial pada kecepatan 9600 baud. Kemudian tetapkan mode pin sebagai output dan input pullup. Jika nilai LDR kurang dari 2,5 Maka motor akan bergerak searah jarum jam namun jika LDR lebih dari 2,5 maka motor akan bergerak terbalik. Jika tidak ada button yg ditekan maka ia akan masuk pada kondisi nonpergerakan. Button pertama bergerak sebesar 0 derajat, button kedua 90 derajat, button ketiga 180 derajat, button keempat 270 derajat. Ada juga terdapat delay sebesar 100 Mili second.</div><div class="separator" style="clear: both; text-align: left;">
</div></div>](#)

4. Flowchart dan listing program

[Kembali]</div><div><div><div class="separator" style="clear: both; text-align: center;">
</div></div><div class="separator" style="clear: both;

```

text-align: left;">Flowchart</div><div class="separator" style="clear: both; text-align: left;"><br
/></div><div class="separator" style="clear: both; text-align: center;"><a
href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEgptl2o8YG5MWcSrZB0Ys7KqMcgQPws_zATptRIDHzSBZUQQEWmyAZIIs8AvbPU2MJst_1-1nNxbR7jlf-s4dqdHW2eHvXZkSXpBn_rM6f_H7f3zV-tr15CgWnlfWO_VI_oBVx35eMETGKIGrP099Pre8Lm67N0tb5-b3MSnGel1EKLCLMPLP3vbu3pBKsk/s1061/flowchart%20p6m2.png" style="margin-left: 1em; margin-right: 1em;"></a></div><div class="separator"
style="clear: both; text-align: center;"><br /></div><div class="separator" style="clear: both;
text-align: left;">Listing Program</div><div class="separator" style="clear: both; text-align: left;"><br
/></div><div class="separator" style="clear: both; text-align: left;"><div class="separator"
style="clear: both; text-align: justify;"><div class="separator" style="clear: both;"><div
class="separator" style="clear: both;"><div class="separator" style="clear: both;">// Mendefinisikan
konstanta untuk pin Arduino</div><div class="separator" style="clear: both;">#define A 8</div><div
class="separator" style="clear: both;">#define B 9</div><div class="separator" style="clear:
both;">#define C 10</div><div class="separator" style="clear: both;">#define D 11</div><div
class="separator" style="clear: both;">#define PB1 2</div><div class="separator" style="clear:
both;">#define PB2 3</div><div class="separator" style="clear: both;">#define PB3 4</div><div
class="separator" style="clear: both;">#define PB4 5</div><div class="separator" style="clear:
both;">#define LDR A0</div><div class="separator" style="clear: both;"><br /></div><div
class="separator" style="clear: both;">void setup() {</div><div class="separator" style="clear:
both;">&nbsp; Serial.begin(9600);</div><div class="separator" style="clear: both;">&nbsp; // Mulai
komunikasi serial pada kecepatan 9600 baud</div><div class="separator" style="clear:
both;">&nbsp; // Menetapkan mode pin sebagai OUTPUT atau INPUT_PULLUP</div><div
class="separator" style="clear: both;">&nbsp; pinMode(A, OUTPUT);</div><div class="separator"
style="clear: both;">&nbsp; pinMode(B, OUTPUT);</div><div class="separator" style="clear:
both;">&nbsp; pinMode(C, OUTPUT);</div><div class="separator" style="clear: both;">&nbsp;
pinMode(D, OUTPUT);</div><div class="separator" style="clear: both;">&nbsp; pinMode(PB1,
INPUT_PULLUP);</div><div class="separator" style="clear: both;">&nbsp; pinMode(PB2,
INPUT_PULLUP);</div><div class="separator" style="clear: both;">&nbsp; pinMode(PB3,
INPUT_PULLUP);</div><div class="separator" style="clear: both;">&nbsp; pinMode(PB4,
INPUT_PULLUP);</div><div class="separator" style="clear: both;">&nbsp; pinMode(LDR,
INPUT);</div><div class="separator" style="clear: both;">></div><div class="separator" style="clear:
both;"><br /></div><div class="separator" style="clear: both;">void pergerakan_1() {</div><div
class="separator" style="clear: both;">&nbsp; digitalWrite(A, LOW);</div><div class="separator"
style="clear: both;">&nbsp; digitalWrite(D, HIGH);</div><div class="separator" style="clear:
both;">&nbsp; digitalWrite(B, LOW);</div><div class="separator" style="clear: both;">&nbsp;
digitalWrite(C, HIGH);</div><div class="separator" style="clear: both;">></div><div class="separator"
style="clear: both;"><br /></div><div class="separator" style="clear: both;">void pergerakan_2()
{</div><div class="separator" style="clear: both;">&nbsp; digitalWrite(A, HIGH);</div><div
class="separator" style="clear: both;">&nbsp; digitalWrite(D, HIGH);</div><div class="separator"
style="clear: both;">&nbsp; digitalWrite(B, LOW);</div><div class="separator" style="clear:
both;">&nbsp; digitalWrite(C, LOW);</div><div class="separator" style="clear: both;">></div><div
class="separator" style="clear: both;"><br /></div><div class="separator" style="clear: both;">void
pergerakan_3() {</div><div class="separator" style="clear: both;">&nbsp; digitalWrite(A,

```

[illegible]

```

class="separator" style="clear: both; ">&nbsp; &nbsp; if (b4 == LOW) {</div><div class="separator"
style="clear: both; ">&nbsp; &nbsp; &nbsp; pergerakan_4();</div><div class="separator"
style="clear: both; ">&nbsp; &nbsp; } else if (b3 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_3 ();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else if (b2 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_2 ();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else if (b1 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_1 ();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else {</div><div class="separator" style="clear: both; ">&nbsp; &nbsp; &nbsp;
&nbsp; nonpergerakan();</div><div class="separator" style="clear: both; ">&nbsp; &nbsp; &nbsp;
}</div><div class="separator" style="clear: both; ">&nbsp; } else {</div><div class="separator"
style="clear: both; ">&nbsp; &nbsp; if (b4 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_8();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else if (b3 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_7();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else if (b2 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_6();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else if (b1 == LOW) {</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; &nbsp; pergerakan_5();</div><div class="separator" style="clear:
both; ">&nbsp; &nbsp; } else {</div><div class="separator" style="clear: both; ">&nbsp; &nbsp; &nbsp;
&nbsp; nonpergerakan();</div><div class="separator" style="clear: both; ">&nbsp; &nbsp; &nbsp;
}</div><div class="separator" style="clear: both; ">&nbsp; }</div><div class="separator" style="clear:
both; "><br /></div><div class="separator" style="clear: both; ">&nbsp; delay(100);</div><div
class="separator" style="clear: both; "></div></div></div></div><div class="separator" style="clear:
both; text-align: justify; "><br /></div></div><span style="color: #990000; font-family: times;
font-size: medium; ">

```


5. Kondisi


```

<a href="#home">[Kembali]</a></span></span></span></div><div><b style="font-family: times,
&quot;times new roman&quot;; serif; "><br /></b></div><div><b style="font-family: times,
&quot;times new roman&quot;; serif; ">Kondisi&nbsp;&nbsp;&nbsp; →Percobaan 6 Kondisi
5</b></div><div>Sertakan dengan LDR ketika bernilai &lt;2.50 putaran motor searah jarum
jam.</div><div><div><div class="separator" style="clear: both; text-align: center; "><br
/></div></div><span style="color: #990000; font-family: times; font-size: medium; ">

```


6. Video simulasi


```

<a href="#home">[Kembali]</a></span></span></span></div><div style="text-align: center; "><span
style="color: #990000; font-family: times; font-size: medium; "><div class="separator" style="clear:
both; text-align: center; "><br /></div><div class="separator" style="clear: both; text-align:
center; "><object class="BLOG_video_class" contentid="c9fda25c52644aea" height="266"
id="BLOG_video-c9fda25c52644aea" width="320"></object></div><div class="separator"

```


justify; text-indent: 14.15pt;">
</div><div>
</div><p
class="MsoBodyText" style="line-height: 115%; margin-bottom: 0cm; margin-left: 29.4pt;
margin-right: 5.75pt; margin-top: 2.05pt; margin: 2.05pt 5.75pt 0cm 29.4pt; text-align: justify;
text-indent: 14.15pt;"><o:p></o:p></p>

</div></div>

</div>