

```
<div style="text-align: center;"><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><a
```

```
href="https://muhammadmirzaavicena211018.blogspot.com/2024/03/modul-1.html" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">[KEMBALI KE MENU SEBELUMNYA]</span></a></div><div
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style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><span style="font-family: times; font-size: medium;"><br /></span></div><center style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><div style="background-color: white; border: 2px dashed rgb(23, 128, 221); box-sizing: border-box; height: 240px; margin: 0px; overflow: auto; padding: 10px; width: 330px;"><span style="font-family: times; font-size: medium;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">
```

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<a name="home" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; transition: all 0.3s ease 0s;">DAFTAR ISI</a></b><br style="box-sizing: border-box;" /></span><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
```

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<a href="#prosedur" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">1. Prosedur</span></a></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
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<a href="#hardware" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">2. Hardware dan Diagram Blok</span></a></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
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<a href="#rangkaian" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">3. Rangkaian Simulasi dan Prinsip Kerja</span></a></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
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<a href="#flowchart" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">4. Flowchart dan Listing Program</span></a></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
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<a href="#kondisi" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">5. Kondisi</span></a></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
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<a href="#demo" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="font-family: times; font-size: medium;">6. Video Demo</span></a></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">
```

[7. Download File](#)

Percobaan VI

8x PUSH BUTTON DAN LCD

Prosedur

[Kembali]

- Rangkailah seperti rangkaian berikut
- Buka Arduino IDE dan masukan listing program
- Upload program ke arduino
- Variasikan tombol yang ditekan dan amati keluarannya pada LCD

[prosedur](#)

1. Prosedur

[Kembali]

- Rangkailah seperti rangkaian berikut
- Buka Arduino IDE dan masukan listing program
- Upload program ke arduino
- Variasikan tombol yang ditekan dan amati keluarannya pada LCD

Opx; padding: 0px;">

2. Hardware dan Diagram Blok

 [Kembali]</h3>
<div class="separator" style="clear: both; text-align: center;"></div></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">Gambar 1. Rangkaian Hardware<div> </div><div>
</div><div> </div><div><div class="separator" style="clear: both; text-align: center;"></div></div><div>
</div><div> 2. switch spdt
</div><div><div class="separator" style="clear: both; text-align: center;">
</div><div class="separator" style="clear: both; text-align: center;"><img border="0" data-original-height="551" data-original-width="894" height="197"

wrizMkxb413IS8j6e0J8k6mqH-IOAc5FEmUOmSu1dnfTyLqdifHZHHRcKvwVNiD_Smq3ycR
CK1XBbzI403Nz-o63CdNrl3gJkFT0vf6EwmiNuCWt4LO4IU5T7eAF2o3H5jyLLRUZW-wBxN
6JWxLORFvxhdc8nJC5WwuUhJjXGP/s320/51qEq2cMVCL._AC_UF894,1000_QL80_.jpg"

width="320" /></div>
<div style="text-align: center;">
</div><div
class="separator" style="clear: both; text-align: center;">
</div><br
</div><div> 3. LCD<br
</div><div><div class="separator" style="clear: both;
text-align: center;"><a

href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEj7uPevYBR4wMoZ_O0
aLcJ7jA1Lu-W1_QjIkj5kkMdwLJIW_IK2-OBSJWoFUKUayK4vf-pLI7SuNnfogv7eeznYmXy-m
buzngDqMV8BePkj-IZ7ukuK9InFTJNagXSdATU_RI7Ixlcm6ypwY6r53jfgLU9zuBege9Yo_5L
dvvYvnQQ11wPuVArH98iqgo/s225/download%20(1).jpeg" style="margin-left: 1em;
margin-right: 1em;"></div><div
class="separator" style="clear: both; text-align: center;">
</div><br
</div><div> 4. Kabel
jumper
</div><div><div

class="separator" style="clear: both; text-align: center;"><a
href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEgUbYr9dSof5j69YvFXF
RRtsFEWZ3TZvnrw8qMK99dsjLQGfGslhbD8J15akZGjHqkH4d1PVrCFjplInvVAQWHlkQZa
ouHnVR7E_VL0YVAqDFoZ0cAAgbbpJ6aslfbJInRcP3pxBxsvoVmL9157fitQIBW60KRmld2O
ZORqHvl2NEjQR-r2F5RFmEkEfAPU/s320/jumper%20fm.jpg" style="margin-left: 1em;
margin-right: 1em;"></div><div class="separator" style="clear: both; text-align: center;"><br
</div> 5.
Breadboard</div><div><div

class="separator" style="clear: both; text-align: center;"><a
href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEiZMwixnPgjFVezUlv5-3
HQff6D8005VbnYGAza404B6KJBANSnUSBqorMa_mgYtswG3gsfRrm2eMO8Hi3GwRqv3lr
H8BeiteFMAbXWIH1FbWs1dkoybjYPxfMaFxoZQfkeL9RhULJXyOI3gYpqx0w5G_5xmLJZ
DfhO3zuAEOJz1X9EyJAUDrmeXf-Wxc/s320/679813_439a59b9-284e-4573-949d-12ab0d5
d002a%20(1).jpg" style="margin-left: 1em; margin-right: 1em;"></div><div class="separator" style="clear: both;
text-align: center;"><br

</div></div><div><br

</div></div><div><br

</div></div><div><br

A1 A2 A3 A4 A5 12 13 arduino dan untuk output yang digunakan adalah LCD 16X2 yang terhubung ke pin3 4 5 6 10 dan 11 arduino.

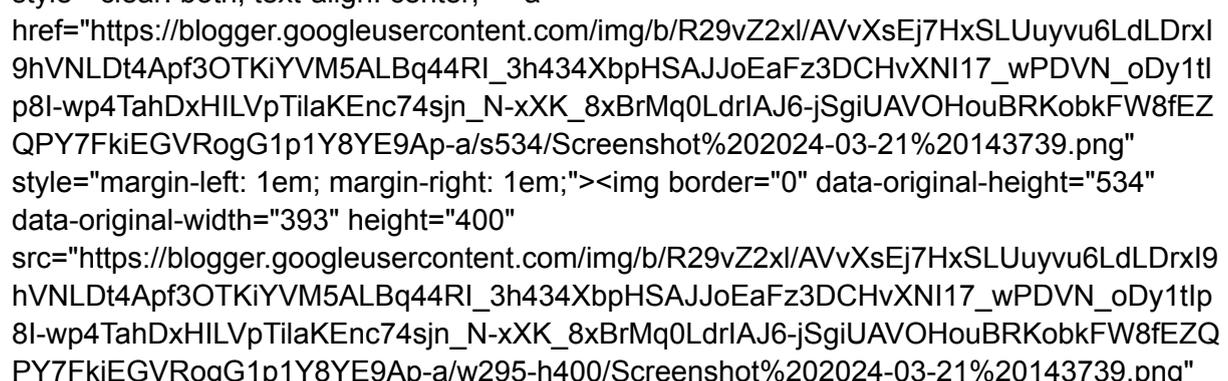
LCD dapat menampilkan Display berdasarkan inputnya dimulai dengan membaca status setiap tombol yang terhubung ke pin arduino. Program kemudian mengevaluasi kondisi input, memeriksa kombinasi tombol mana yang aktif dengan menggunakan serangkaian pernyataan if-else. Setiap pernyataan if menguji status dari satu tombol, sementara tombol-tombol lainnya dicek dalam kondisi else if. Jika kondisi input sesuai dengan salah satu pernyataan if, program akan menampilkan pesan yang sesuai pada LCD dan membersihkan layar sebelumnya. LCD menampilkan informasi yang relevan sesuai dengan input pengguna.

[Flowchart](#)

4. Flowchart dan Listing Program

[Kembali](#)

Flowchart:



Listing Program:

```
#include <LiquidCrystal.h>
```

```

style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">#define PB1
A0</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">#define PB2 A1</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">#define PB3 A2</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">#define PB4 A3</div><div style="border: 0px; box-sizing:
border-box; margin: 0px; padding: 0px;">#define PB5 A4</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">#define PB6 A5</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">#define PB7
12</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">#define
PB8 13</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">const int rs = 11, en = 10, d4 = 6, d5 = 5, d6 = 4, d7 = 3;</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">LiquidCrystal lcd(rs, en, d4, d5, d6,
d7);</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">bool
Button1,Button2,Button3,Button4,Button5,Button6,Button7,Button8;</div><div style="border:
0px; box-sizing: border-box; margin: 0px; padding: 0px;">void setup() {</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">&nbsp;Serial.begin(9600);</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.begin(16,2);</div><div style="border: 0px; box-sizing:
border-box; margin: 0px; padding: 0px;">&nbsp;pinMode(PB1, INPUT);</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">&nbsp;pinMode(PB2, INPUT);</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;pinMode(PB3, INPUT);</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;pinMode(PB4,
INPUT);</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">&nbsp;pinMode(PB5, INPUT);</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;pinMode(PB6, INPUT);</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;pinMode(PB7,
INPUT);</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">&nbsp;pinMode(PB8, INPUT);</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;"></div><div style="border: 0px; box-sizing: border-box; margin:
0px; padding: 0px;">void loop() {</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;Button1 = digitalRead(PB1);</div><div style="border:
0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;Button2 =
digitalRead(PB2);</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;Button3 = digitalRead(PB3);</div><div style="border: 0px; box-sizing:
border-box; margin: 0px; padding: 0px;">&nbsp;Button4 = digitalRead(PB4);</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;Button5 =
digitalRead(PB5);</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;Button6 = digitalRead(PB6);</div><div style="border: 0px; box-sizing:
border-box; margin: 0px; padding: 0px;">&nbsp;Button7 = digitalRead(PB7);</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;Button8 =
digitalRead(PB8);&nbsp;</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;if(Button1==HIGH & Button2==LOW & Button3==LOW
& Button4==LOW & Button5==LOW & &nbsp;</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">Button6==LOW & Button7==LOW
& Button8==LOW){</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;lcd.clear();</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.setCursor(0, 0);</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;lcd.print("Merah");</div><div

```



```

0px; padding: 0px;">& Button6==LOW & Button1==LOW &
Button8==LOW){</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;lcd.clear();</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.setCursor(0, 1);</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;lcd.print("Biru");</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;}</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;else
if(Button8==HIGH & Button2==LOW & Button3==LOW & Button4==LOW
& Button5==LOW&nbsp;</div><div style="border: 0px; box-sizing: border-box; margin:
0px; padding: 0px;">& Button6==LOW & Button7==LOW &
Button1==LOW){</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;lcd.clear();</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.setCursor(0, 1);</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;lcd.print("Putih");</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;}</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;else
if(Button1==LOW & Button2==LOW & Button3==LOW & Button5==LOW
& Button5==LOW&nbsp;</div><div style="border: 0px; box-sizing: border-box; margin:
0px; padding: 0px;">& Button6==LOW & Button7==LOW &
Button8==LOW){</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">&nbsp;lcd.clear();</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.setCursor(0, 0);</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;lcd.print("Silahkan
Tekan");</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">&nbsp;lcd.setCursor(0, 1);</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.print("Salah Satu SW");</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;}</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;else{</div><div style="border:
0px; box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;lcd.clear();</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding:
0px;">&nbsp;lcd.setCursor(0, 0);</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;">&nbsp;lcd.print("Error");</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;}</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&nbsp;delay(100); // Tambahkan
penundaan agar tampilan tidak berubah terlalu cepat</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;">&}</div></div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;"><div class="separator" style="border:
0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px; text-align: center;"><br
/></div></div></span></div><p style="border: 0px; box-sizing: border-box; margin: 0px 0px
15px; padding: 0px; text-align: justify;"><b style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px; text-align: left;"><span style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;"><span style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;"><a name="kondisi">5. Kondisi</a></span>&nbsp;<a href="#home"
style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px;
text-decoration-line: none; transition: all 0.3s ease 0s;">[Kembali]</a></span></b></p><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align:
justify;"><span style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;
text-align: left;">&nbsp; &nbsp;&nbsp;&nbsp;</span><span style="background-color: white;
text-align: left;">Ketika menekan&nbsp;&nbsp;&nbsp;salah satu switch SPDT akan dibaca oleh Arduino

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text-decoration-line: none; transition: all 0.3s ease 0s;">klik disini
</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;">□ Gambar Rangkaian → klik disini<br style="box-sizing: border-box;" /><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;">□ Video Demo → klik disini<br style="box-sizing: border-box;" /><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;">□ Listing Program → klik disini</div><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 1px; padding: 0px; text-align: left;"><br style="background-color: white; box-sizing: border-box; color: #444444; font-family: "open sans", arial, helvetica, sans-serif; font-size: 15px;" /></p><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 1px; padding: 0px; text-align: left;">
</p><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 1px; padding: 0px; text-align: left;">
</p><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 1px; padding: 0px; text-align: left;">
</p><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 1px; padding: 0px; text-align: left;">
</p></center></div>