

```
<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="#kondisi">Kondisi</a></div>
<div style="text-align: left;"><a href="#rangkaian">Rangkaian Simulasi</a></div>
<div style="text-align: left;"><a href="#video">Video</a></div>
<div style="text-align: left;"><a href="#prinsip">Prinsip Kerja</a><br />
<div style="text-align: left;"><a href="#link">Link Download</a></div>
</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; font-size:
small;"><b><div><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>Kondisi</b>
<a name="kondisi"></a>
<a href="#home">[Kembali]</a></span></span><div><span style="font-family: times, times
new roman, serif;">Percobaan 4 - Kondisi 7:</span></div><div><span style="font-family:
times, times new roman, serif;"><br /></span></div><span style="font-family: times,
&quot;times new roman&quot;, serif;">Sertakan Touch sensor, mode diatur dengan
keypad,</span><div><span style="font-family: times, times new roman,
serif;"><div>tampilan mode pada LCD dan mode dapat diatur ketika Touch sensor berlogika
HIGH</div><div><br /></div></span><div><span style="font-family: times, times new
roman, serif;"><p class="MsoNormal"><b>Rangkaian Simulasi</b><span style="font-family:
times, &quot;times new roman&quot;, serif;">
</span><a name="rangkaian"></a><span style="font-family: times, &quot;times new
roman&quot;, serif;">
</span><a href="#home">[Kembali]</a></p></span></div><div><div><div class="separator"
style="clear: both; text-align: center;"><div class="separator" style="clear: both; text-align:
center;"><div class="separator" style="clear: both; text-align: center;"><div class="separator"
style="clear: both; text-align: center;"><div class="separator" style="clear: both; text-align:
center;"><div class="separator" style="clear: both; text-align: center;"><div class="separator"
style="clear: both; text-align: center;"><div class="separator" style="clear: both; text-align:
center;"><br /></div><br /><br /></div><div class="separator" style="clear: both; text-align:
center;"><a
href="https://1.bp.blogspot.com/drive-storage/AJQWtBNyNonk2qciPqh-5nnuOZSsMhsXNsP
vVFg4yaTMSj_9CUq6iVeUN9IfZ-5VgWJpBG0tTMi8fcytwcnl444zPi5IYUMORIPmAhSBfNB
=s400" style="margin-left: 1em; margin-right: 1em;"><img border="0"
data-original-height="245" data-original-width="400" height="196"
```



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#d35400;">colPins</span>[COLS] = <span style="color: #434f54;">{</span><span
style="color: #005c5f;">5</span>, <span style="color: #005c5f;">4</span>, <span
style="color: #005c5f;">3</span><span style="color: #434f54;">}</span>;<span style="color:
#95a5a6;"> // Pin kolom keypad</span></div><div style="color: #4e5b61; font-family:
Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space:
pre;">Keypad keypad = <span style="color: #d35400;">Keypad</span><span style="color:
#434f54;">(</span><span style="color: #d35400;">makeKeymap</span><span style="color:
#434f54;">(</span><span style="color: #434f54;">)</span>, rowPins, colPins, ROWS,
COLS<span style="color: #434f54;">)</span>;</div><br style="color: #4e5b61; font-family:
Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;" /><div
style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace;
font-size: 14px; white-space: pre;"><span style="color: #95a5a6;">// Deklarasi pin sensor
touch</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;"><span style="color:
#00979d;">const</span> <span style="color: #00979d;">int</span> touchPin = <span
style="color: #005c5f;">12</span>;</div><br style="color: #4e5b61; font-family: Consolas,
&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;" /><div
style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace;
font-size: 14px; white-space: pre;"><span style="color: #95a5a6;">// Deklarasi pin
LCD</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;">LiquidCrystal <span
style="color: #d35400;">lcd</span><span style="color: #434f54;">(</span><span>A0, A1, A2, A3,
A4, A5<span style="color: #434f54;">)</span>;</div><br style="color: #4e5b61; font-family:
Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;" /><div
style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace;
font-size: 14px; white-space: pre;"><span style="color: #00979d;">void</span> <span
style="color: #d35400;">setup</span><span style="color: #434f54;">(</span><span><span
style="color: #434f54;">{</span></div><div style="color: #4e5b61; font-family: Consolas,
&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp;<span
style="color: #d35400;">Serial</span>.<span style="color: #d35400;">begin</span><span
style="color: #434f54;">(</span><span style="color: #005c5f;">9600</span><span
style="color: #434f54;">)</span>;<span style="color: #95a5a6;"> // Inialisasi komunikasi
serial</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp;<span style="color:
#d35400;">pinMode</span><span style="color: #434f54;">(</span><span>touchPin, INPUT<span
style="color: #434f54;">)</span>;<span style="color: #95a5a6;"> // Mengatur pin sensor
touch sebagai input</span></div><div style="color: #4e5b61; font-family: Consolas,
&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp;<span
style="color: #d35400;">lcd</span>.<span style="color: #d35400;">begin</span><span
style="color: #434f54;">(</span><span style="color: #005c5f;">16</span>, <span
style="color: #005c5f;">2</span><span style="color: #434f54;">)</span>;<span style="color:
#95a5a6;"> // Mengatur jumlah kolom dan baris LCD</span></div><div style="color:
#4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px;
white-space: pre;"><span style="color: #434f54;">}</span></div><br style="color: #4e5b61;
font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space:
pre;" /><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;,
monospace; font-size: 14px; white-space: pre;"><span style="color: #00979d;">void</span>
<span style="color: #d35400;">loop</span><span style="color: #434f54;">(</span><span> <span

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style="color: #434f54;">{/span></div><div style="color: #4e5b61; font-family: Consolas,
&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp; <span
style="color: #00979d;">int</span> touchValue = <span style="color:
#d35400;">digitalRead</span><span style="color: #434f54;">(</span>touchPin<span
style="color: #434f54;">)</span>;<span style="color: #95a5a6;"> // Membaca nilai sensor
touch</span></div><br style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;" /><div style="color: #4e5b61;
font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space:
pre;"><span style="color: #95a5a6;">&nbsp; &nbsp; // Jika sensor touch aktif
(HIGH)</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp; <span style="color:
#728e00;">if</span> <span style="color: #434f54;">(</span>touchValue == HIGH<span
style="color: #434f54;">)</span> <span style="color: #434f54;">{/span></div><div
style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace;
font-size: 14px; white-space: pre;">&nbsp; &nbsp; <span style="color:
#00979d;">char</span> key = <span style="color: #d35400;">keypad</span>.<span
style="color: #d35400;">getKey</span><span style="color: #434f54;">()</span>;<span
style="color: #95a5a6;"> // Membaca tombol yang ditekan pada keypad</span></div><div
style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace;
font-size: 14px; white-space: pre;">&nbsp; &nbsp; </div><div style="color: #4e5b61;
font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space:
pre;"><span style="color: #95a5a6;">&nbsp; &nbsp; // Jika tombol ditekan</span></div><div
style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace;
font-size: 14px; white-space: pre;">&nbsp; &nbsp; <span style="color: #728e00;">if</span>
<span style="color: #434f54;">(</span>key<span style="color: #434f54;">)</span> <span
style="color: #434f54;">{/span></div><div style="color: #4e5b61; font-family: Consolas,
&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp; &nbsp;
&nbsp; <span style="color: #d35400;">lcd</span>.<span style="color:
#d35400;">clear</span><span style="color: #434f54;">()</span>;<span style="color:
#95a5a6;"> // Membersihkan tampilan LCD</span></div><div style="color: #4e5b61;
font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space:
pre;">&nbsp; &nbsp; &nbsp; <span style="color: #d35400;">lcd</span>.<span style="color:
#d35400;">setCursor</span><span style="color: #434f54;">(</span><span style="color:
#005c5f;">0</span>, <span style="color: #005c5f;">0</span><span style="color:
#434f54;">)</span>;<span style="color: #95a5a6;"> // Mengatur posisi kursor di baris 1
kolom 1</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp; &nbsp; &nbsp; <span
style="color: #d35400;">lcd</span>.<span style="color: #d35400;">print</span><span
style="color: #434f54;">(</span><span style="color: #005c5f;">"Tombol: "</span><span
style="color: #434f54;">)</span>;<span style="color: #95a5a6;"> // Menampilkan teks
"Tombol: " di LCD</span></div><div style="color: #4e5b61; font-family: Consolas,
&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp; &nbsp;
&nbsp; <span style="color: #d35400;">lcd</span>.<span style="color:
#d35400;">print</span><span style="color: #434f54;">(</span>key<span style="color:
#434f54;">)</span>;<span style="color: #95a5a6;"> // Menampilkan tombol yang ditekan di
LCD</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier
New&quot;;, monospace; font-size: 14px; white-space: pre;">&nbsp; &nbsp; <span
style="color: #434f54;">}</span></div><div style="color: #4e5b61; font-family: Consolas,

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&quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; <span style="color: #434f54;"/>}</span> <span style="color: #728e00;"/>else</span> <span style="color: #434f54;"/>}</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/><span style="color: #95a5a6;"/>&nbsp; &nbsp; &nbsp; // Jika sensor touch tidak aktif (LOW), tampilkan pesan</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; &nbsp; &nbsp; <span style="color: #d35400;"/>lcd</span>.<span style="color: #d35400;"/>clear</span><span style="color: #434f54;"/></span><span style="color: #95a5a6;"/> // Membersihkan tampilan LCD</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; &nbsp; &nbsp; <span style="color: #d35400;"/>lcd</span>.<span style="color: #d35400;"/>setCursor</span><span style="color: #434f54;"/></span><span style="color: #005c5f;"/>0</span>, <span style="color: #005c5f;"/>0</span><span style="color: #434f54;"/></span><span style="color: #95a5a6;"/> // Mengatur posisi kursor di baris 1 kolom 1</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; &nbsp; &nbsp; <span style="color: #d35400;"/>lcd</span>.<span style="color: #d35400;"/>print</span><span style="color: #434f54;"/></span><span style="color: #005c5f;"/>"Sentuh sensor"</span><span style="color: #434f54;"/></span><span style="color: #95a5a6;"/> // Menampilkan pesan di LCD</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; &nbsp; &nbsp; <span style="color: #d35400;"/>lcd</span>.<span style="color: #d35400;"/>setCursor</span><span style="color: #434f54;"/></span><span style="color: #005c5f;"/>0</span>, <span style="color: #005c5f;"/>1</span><span style="color: #434f54;"/></span><span style="color: #95a5a6;"/> // Mengatur posisi kursor di baris 2 kolom 1</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; &nbsp; &nbsp; <span style="color: #d35400;"/>lcd</span>.<span style="color: #d35400;"/>print</span><span style="color: #434f54;"/></span><span style="color: #005c5f;"/>"untuk akses"</span><span style="color: #434f54;"/></span><span style="color: #95a5a6;"/> // Menampilkan pesan di LCD</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/>&nbsp; <span style="color: #434f54;"/>}</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/><span style="color: #434f54;"/>}</span></div><div style="color: #4e5b61; font-family: Consolas, &quot;Courier New&quot;;, monospace; font-size: 14px; white-space: pre;"/><br /></span></div></span></div><div><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>Video</b><a name="video"></a><a href="#home">[Kembali]</a></span></span></div><div><div class="separator" style="clear: both; text-align: center;"/><br /></div><br /></div><div class="separator" style="clear: both; text-align: center;"/><object class="BLOG_video_class" contentid="4124ee35fb42a795" height="266" id="BLOG_video-4124ee35fb42a795" width="320"></object></div><br /><div class="separator" style="clear: both; text-align: center;"/><br /></div><br /><div><span style="font-family: times, times new roman, serif;"/><br /></span><span style="font-family: &quot;times&quot; , &quot;times new
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roman", serif;"><span style="font-family: "times", "times new roman", serif; font-size: small;"><b>Prinsip Kerja</b>

<a name="prinsip"></a>

<a href="#home">[Kembali]</a></span></span></div><div><span style="font-family: times, "times new roman", serif;"><div class="separator" style="clear: both; text-align: center;"><div style="text-align: left;">Pada rangkaian ini, sensor sentuhan berfungsi sebagai input, keypad berfungsi sebagai output, dan LCD berfungsi sebagai output. Ketika keypad ditekan, keypad akan menampilkan tulisan pada LCD, dan ketika sensor sentuhan berlogika 1, LCD akan hidup.</div><div style="text-align: left;"><br /></div><div style="text-align: left;">&nbsp; &nbsp; Ketika program diunggah ke Arduino, layar LCD akan menampilkan "Mode Tekanan" sesuai dengan logika sentuhan sentuhan. Jika sensor sentuhan memiliki logika tinggi, maka mode itu akan ON, dan jika sensor memiliki logika rendah, maka mode itu akan OFF. Setelah itu, program akan terus berjalan dalam loop utama, menunggu input dari pengguna. Jika pengguna memasukkan karakter dari keypad, karakter tersebut akan ditampilkan di layar LCD. Ini memungkinkan pengguna memasukkan karakter satu per satu.</div><div style="text-align: left;"><br /></div></span></div><div><span style="font-family: "times", "times new roman", serif;"><span style="font-family: "times", "times new roman", serif; font-size: small;"><b>Link Download</b>

<a name="link"></a>

<a href="#home">[Kembali]</a></span></span><br />

</div><div><span style="font-family: times, times new roman, serif;"><a href="https://drive.google.com/file/d/1i4r-pKeCLGx8Kd-9gStV7wTHEJ9YxnJQ/view?usp=drive\_link">Download Rangkaian Proteus</a>&nbsp;</span></div><div><span style="font-family: times, times new roman, serif;"><a href="https://drive.google.com/file/d/1ZRQBIDRG1tZWXBII\_wIO3gArqRQ-D00W/view?usp=sharing">Download Video</a>&nbsp;</span></div><div><span style="font-family: times, times new roman, serif;"><a href="https://docs.google.com/document/d/1gj5jTrNzcgzigPt8SwrXYIri9mzMnLqYf-20UESoS Bw/edit?usp=sharing">Download HTML</a></span></div><div><a href="https://drive.google.com/uc?export=download&id=1SFy\_NtRqEGIAivcrBZmx-HuPz6lVz0dU">Download Source Code</a></div><div><span style="background-color: white; color: #222222; font-family: "EB Garamond"; font-size: 13.2px;">Download Datasheet LED&nbsp;</span><a href="https://drive.google.com/uc?export=download&id=1FuDwEeCh5GrYkeuJzR7Wa5nABAdJdFff" style="background-color: white; color: #2288bb; cursor: url(&quot;https://cur.cursors-4u.net/cursors/cur-1/cur1.ani&quot;), url(&quot;https://cur.cursors-4u.net/cursors/cur-1/cur1.png&quot;), auto; font-family: &quot;EB Garamond&quot;; font-size: 13.2px; text-decoration-line: none;">klik disini</a></div><div><span face="&quot;open sans&quot;, arial, helvetica, sans-serif" style="background-color: white; color: #444444; font-size: 15px; text-indent: 48px;">Datasheet Resistor</span><span face="&quot;open sans&quot;, arial, helvetica, sans-serif" style="background-color: white; color: #444444; font-size: 15px; text-indent: 48px;">&nbsp;</span><a href="https://drive.google.com/file/d/1dUH2MtN9dmBCz6862h63DCRKnS\_WX4qK/view?usp=sharing" style="border: 0px; box-sizing: border-box; color: #597e00; font-family: &quot;open sans&quot;, arial, helvetica, sans-serif; font-size: 15px; margin: 0px; padding: 0px; text-decoration-line: none; text-indent: 48px; transition: all 0.3s ease 0s;">download

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file</a></div><div><span face="&quot;open sans&quot;, arial, helvetica, sans-serif"
style="background-color: white; color: #444444; font-size: 15px; text-indent:
48px;">Datasheet Arduino UNO</span><span face="&quot;open sans&quot;, arial,
helvetica, sans-serif" style="background-color: white; color: #444444; font-size: 15px;
text-indent: 48px;">&nbsp;</span><a
href="https://drive.google.com/file/d/1wEvY-YI2GSQSKOGJw9C5iFXmMIWDMts/view"
style="border: 0px; box-sizing: border-box; color: #597e00; font-family: &quot;open
sans&quot;, arial, helvetica, sans-serif; font-size: 15px; margin: 0px; padding: 0px;
text-decoration-line: none; text-indent: 48px; transition: all 0.3s ease 0s;">download
file</a></div>
</div></div>
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