

[\[KEMBALI KE MENU SEBELUMNYA\]](https://anugrah211013.blogspot.com/p/mikro-2024-modul-1-kembali-ke-menu.html)

[1. Foto Hardware dan Diagram Blok](https://anugrah211013.blogspot.com/p/mikro-2023-percobaan-1-modul-1-kembali.html#F)

[2. Prosedur Percobaan](https://anugrah211013.blogspot.com/p/mikro-2023-percobaan-1-modul-1-kembali.html#P)

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href="https://anugrah211013.blogspot.com/p/mikro-2023-percobaan-1-modul-1-kembali.html #L" style="border: 0px; box-sizing: border-box; color: #597e00; margin: 0px; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;">7. Link Download</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;"></div></div><h1 style="background-color: white; border: 0px; box-sizing: border-box; color: #757575; font-size: 21px; letter-spacing: 0px; line-height: 30px; margin: 0px 0px 7px; padding-bottom: 0px; padding-left: 0px; padding-right: 0px; padding-top: 4px !important; padding: 4px 0px 0px; position: relative; text-indent: -1px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">Percobaan I</h1><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">LED & SWITCH</div><h3 style="background-color: white; border: 0px; box-sizing: border-box; color: #757575; font-size: 19px; letter-spacing: 0px; line-height: 29px; margin: 0px 0px 7px; padding-bottom: 0px; padding-left: 0px; padding-right: 0px; padding-top: 4px !important; padding: 4px 0px 0px; position: relative; text-align: justify; text-indent: -1px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">1. Foto Hardware dan Diagram Blok [Kembali]</h3><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px; text-align: justify;"><div class="separator" style="clear: both;"> 1. Arduino Uno
</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;"> 2.

Push Button
</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;"> 3. LED
</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;"> >4. Resistor
</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;"> 5. Power Supply
</div><div class="separator" style="clear: both;"><div class="separator" style="clear: both; text-align: center;"><a

[illegible]

dl68tC6gtYmIfoo9DjIPLmdjKkR9l/w640-h140/Screenshot%202024-02-29%20230204.png" style="border: none; position: relative;" width="640" /></div>
<div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px; text-align: center;">
</div></div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;"><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px;"><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px;"><br style="box-sizing: border-box;" /></div><br style="box-sizing: border-box;" /></div></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><h3 style="background-color: white; border: 0px; box-sizing: border-box; color: #757575; font-size: 19px; letter-spacing: 0px; line-height: 29px; margin: 0px 0px 7px; padding-bottom: 0px; padding-left: 0px; padding-right: 0px; padding-top: 4px !important; padding: 4px 0px 0px; position: relative; text-align: justify; text-indent: -1px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">2. Prosedur Percobaan [Kembali]</h3><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">+ Rangkai semua komponen </div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;">+ buat program di aplikasi arduino IDE</div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;">+ setelah selesai masukkan program ke arduino </div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;">+ jalankan program pada simulasi dan cobakan dengan modul</div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><br style="box-sizing: border-box;" /></div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box;

margin: 0px; padding: 0px;">3. Rangkaian Simulasi dan Prinsip Kerja [Kembali]</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><br style="box-sizing: border-box;" /><div class="separator" style="background-color: white; clear: both; text-align: center;"></div>
<div class="separator" style="background-color: white; clear: both; color: #444444; font-size: 15px; font-weight: bold; text-align: center;">
</div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; font-weight: bold; margin: 0px; padding: 0px; text-align: justify;">Prinsip Kerja</div><div style="background-color: white; border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; font-weight: bold; margin: 0px; padding: 0px; text-align: justify;">
</div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;"><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px; text-align: left;"><div class="separator" style="background-color: white; border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px; text-align: justify;">
</div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px; text-align: justify;"><p style="--tw-border-spacing-x: 0; --tw-border-spacing-y: 0; --tw-ring-color: rgba(69,89,164,.5); --tw-ring-offset-color: #fff; --tw-ring-offset-shadow: 0 0 transparent; --tw-ring-offset-width: 0px; --tw-ring-shadow: 0 0 transparent; --tw-rotate: 0; --tw-scale-x: 1; --tw-scale-y: 1; --tw-scroll-snap-strictness: proximity; --tw-shadow-colored: 0 0 0 transparent; --tw-shadow: 0 0 transparent; --tw-skew-x: 0; --tw-skew-y: 0; --tw-translate-x: 0; --tw-translate-y: 0; border: 0px solid rgb(227, 227, 227); box-sizing: border-box; font-family: Söhne, ui-sans-serif, system-ui, -apple-system, "Segoe UI", Roboto, Ubuntu, Cantarell, "Noto Sans", sans-serif, "Helvetica Neue", Arial, "Apple Color Emoji", "Segoe UI Emoji", "Segoe UI Symbol", "Noto Color Emoji"; font-size: 16px; margin: 0px 0px 1.25em; text-align: start; white-space-collapse: preserve;">Dalam rangkaian ini, kita menggunakan komponen seperti Arduino Uno, push button, resistor, dan LED. Dalam percobaan ini, kita mengatur semua komponen sesuai dengan prosedur yang diinginkan dan mencapai output yang diinginkan. Ketika push button

ditekan, sinyal perubahan tegangan dideteksi oleh pin input yang terhubung dengan mikrokontroler. Mikrokontroler kemudian mengaktifkan pin output untuk menyalakan LED.

Ketika dua push button ditekan, mikrokontroler menerima sinyal dari pin input dan mengaktifkan program yang mengalihkan suplai tegangan ke lima LED dengan frekuensi tertentu, sehingga menyebabkan LED berkedip.

Resistor digunakan dalam rangkaian untuk membatasi aliran arus menuju LED, mencegah LED agar tidak cepat rusak.

4. Flowchart dan Listing Program

Program

<https://anugrah211013.blogspot.com/p/mikro-2023-percobaan-1-modul-1-kembali.html#home>

0px; text-decoration-line: none; transition: all 0.3s ease
0s;"]<Kembali]</h3><div class="separator" style="clear: both; color:
#444444; font-size: 15px; text-align: center;"><a
href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEjySJ2OOKUIAdJ1i27Kr
SOMz0R6ueSWQqQoJWB1XWQWCUINUnk2Uzf9G8hriVu50gtUOVbX9xFmzlswwjPwMv
mbWto8qdHg8d6cBEGUliciWWfjYTyZdzvHUS4IIHsRLO5Hd2z0R3H4GNdGI6Hh1LuM9AN5
4erzExw7tIIom_md_GnAi_nP3aINk8ezw/s446/p1.jpg" style="color: #336699; margin-left:
1em; margin-right: 1em; text-decoration-line: none;"></div><div style="border: 0px; box-sizing: border-box; color:
#444444; font-size: 15px; margin: 0px; padding: 0px;"><br style="box-sizing: border-box;"
</div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;"><span style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;"><div style="border: 0px; box-sizing: border-box; color: #444444; font-size:
15px; margin: 0px; padding: 0px;">Listing Program:</div><div style="border: 0px; box-sizing:
border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px;"><br
style="box-sizing: border-box;" /></div><div style="border: 0px; box-sizing: border-box;
margin: 0px; padding: 0px;"><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">const int
pinA0 = A0; // Assign pin A0 to a variable</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;"><span
style="font-size: 15px;">const int pinA1 = A1; // Assign pin A1 to a
variable</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">const int
outputPin2 = 2; // Output pin 2</div><div style="border: 0px; box-sizing:
border-box; margin: 0px; padding: 0px;"><span
style="font-size: 15px;">const int outputPin3 = 3; // Output pin 3</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><span style="color:
#444444;">const int outputPin4 = 4; // Output pin
4</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;">const int
outputPin5 = 5; // Output pin 5</div><div style="border: 0px; box-sizing:
border-box; margin: 0px; padding: 0px;"><span
style="font-size: 15px;">const int outputPin6 = 6; // Output pin 6</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><span style="color:
#444444;">
</div><div style="border:
0px; box-sizing: border-box; margin: 0px; padding: 0px;"><span style="color:
#444444;">void setup() {</div><div
style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><span style="color:
#444444;"> pinMode(pinA0, INPUT); // Set pin A0 as
input</div><div style="border: 0px; box-sizing: border-box; margin: 0px;
padding: 0px;"> pinMode(pinA1, INPUT); // Set pin A1 as input</div><div style="border: 0px;
box-sizing: border-box; margin: 0px; padding: 0px;"><span

[illegible]

[illegible]

[illegible]

5. Kondisi [Kembali]</p><p style="border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px 0px 15px; padding: 0px; text-align: justify;"> Percobaan 1 Kondisi 3 : "1 button menghidupkan 2 LED, 2 button menghidupkan 5 LED blink"</p><div style="border: 0px; box-sizing: border-box; color: #444444; font-size: 15px; margin: 0px; padding: 0px; text-align: -webkit-center;"><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;">6. Video Simulasi [Kembali]</p><div class="separator" style="clear: both; text-align: center;"><object class="BLOG_video_class" contentid="94d1e97f960266df" height="266" id="BLOG_video-94d1e97f960266df" width="320"></object></div>
<div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px; text-align: center;"><br style="box-sizing: border-box;" /></div><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 15px; padding: 0px;"></p><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><div style="border: 0px; box-sizing: border-box; font-weight: 400; margin: 0px; padding: 0px; text-align: -webkit-center;"><p style="border: 0px; box-sizing: border-box; margin: 0px 0px 1px; padding: 0px; text-align: justify;"></p><div class="separator" style="clear: both; text-align: center;">
</div><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">7. Link Download [Kembali]</p></div></div><b

[HTML](https://drive.google.com/uc?export=download&id=1L2itFJ73zH0zDKd1oZ9CoCu p1lmt p4BSOfXmkMmyGzw) [Download](https://drive.google.com/file/d/1VQy64z-pX82ZgLfCy_wppRsie_fUX95K/view?usp=sharing)

[Video Percobaan](https://drive.google.com/uc?export=download&id=1Y8M3q94umxyY-QZRG9xLX4 IPweKJJ5F5)

[Download](https://drive.google.com/file/d/1FVgXu_e5GiFepf8FpjgeLahYJRulkz7_/view?usp=drive_link)

font-size: 15px; margin: 0px 0px 15px; padding: 0px; text-align: left;"><br style="font-family:
Arial, Tahoma, Helvetica, FreeSans, sans-serif;" /></p></center>