

Html

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<div style="text-align: center;"><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><a href="https://raymondaf212022.blogspot.com/p/modul-2.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 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;">
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[7. Download File](#download)

Percobaan 1

Komunikasi UART Menggunakan Arduino

P

[Prosedur](#)

1. Prosedur

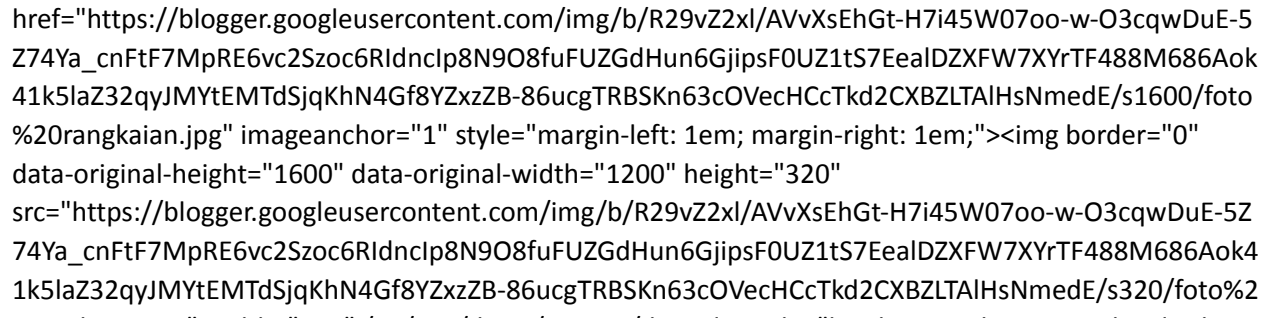
- Rangkailah seperti rangkaian berikut
- Buka Arduino IDE dan masukan listing program
- Upload program master dan slave ke arduino
- Amati keluarannya

H

[hardware](#)

2. Hardware dan Diagram Blok

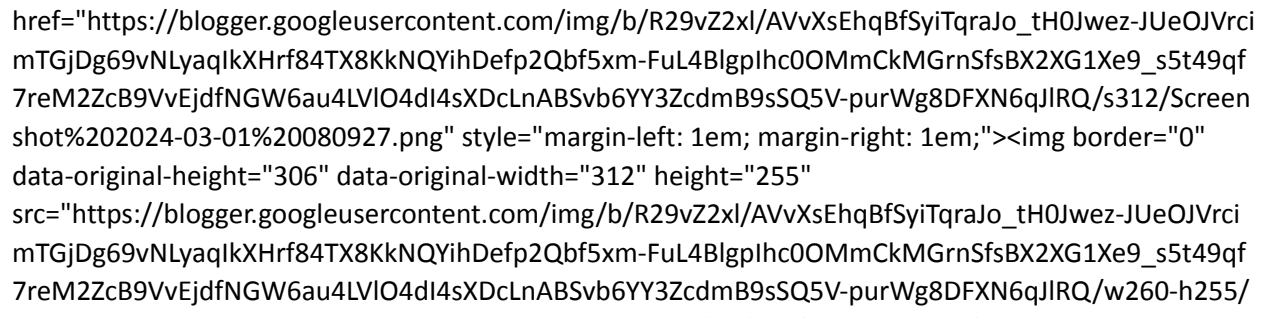
[\[Kembali\]](#)



Gambar 1.

Rangkaian Hardware

1. Arduino Uno



2. DIP Switch

large;"
</div><div style="font-family: times; font-size: large;"><div class="separator" style="clear: both; text-align: center;">
</div class="separator" style="clear: both; text-align: center;"></div><div class="separator" style="clear: both; text-align: center;">
</div></div>
</div><div style="font-family: times; font-size: large;"> 4. Kabel jumper
</div><div style="font-family: times; font-size: large;"><div class="separator" style="clear: both; text-align: center;"></div><div class="separator" style="clear: both; text-align: center;">
</div> 5. Breadboard</div><div style="font-family: times; font-size: large;"><div class="separator" style="clear: both; text-align: center;"></div>
</div class="separator" style="clear: both; text-align: center;">
</div></div><div style="font-family: times; font-size: large;"> </div><div style="font-family: times; font-size: large;"><div class="separator" style="clear: both; text-align: center;">
</div>
</div><div style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px; padding: 0px;">Diagram Blok:<br

style="background-color: white; font-family: times;">Master mengirimkan instruksi digital melalui UART, dan slave menerjemahkan instruksi tersebut untuk menyalakan LED sesuai dengan pola yang telah ditentukan</div></div> </div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><h3 style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; 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;">

4. Flowchart dan Listing Program [Kembali]</h3><div style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px; padding: 0px;">Flowchart:</div><div class="separator" style="clear: both; font-family: times; font-size: large; text-align: center;"><div class="separator" style="clear: both; text-align: left;"> Master</div><div class="separator" style="clear: both; text-align: center;"></div><div style="text-align: left;"> Slave</div><div class="separator" style="clear: both; text-align: center;"></div><div class="separator" style="clear: both; text-align: center;">
</div></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding:

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0px;"><span style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><div style="border:
0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px; padding: 0px;">Listing
Program:</div><div style="border: 0px; box-sizing: border-box; font-family: times; font-size: large;
margin: 0px; padding: 0px;"><br style="box-sizing: border-box;" /></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: left;"><span style="color:
#728e00; font-family: Consolas, Courier New, monospace;"><span><span><span style="font-size: 14px;
white-space: pre;">//MASTER
```

```
#define DS1 2
```

```
#define DS2 3
```

```
#define DS3 4
```

```
#define DS4 5
```

```
#define DS5 6
```

```
#define DS6 7
```

```
#define DS7 8
```

```
#define DS8 9
```

```
bool b1,b2,b3,b4,b5,b6,b7,b8;
```

```
void setup()
```

```
{
```

```
  Serial.begin(9600);
```

```
  pinMode(DS1, INPUT_PULLUP);
```

```
  pinMode(DS2, INPUT_PULLUP);
```

```
  pinMode(DS3, INPUT_PULLUP);
```

```
  pinMode(DS4, INPUT_PULLUP);
```

```
  pinMode(DS5, INPUT_PULLUP);
```

```
  pinMode(DS6, INPUT_PULLUP);
```

```
  pinMode(DS7, INPUT_PULLUP);
```

```
  pinMode(DS8, INPUT_PULLUP);
```

```
}
```

```
void loop()
```

```
{
```

```
int b8 = digitalRead(DS8);
int b7 = digitalRead(DS7);
int b6 = digitalRead(DS6);
int b5 = digitalRead(DS5);
int b4 = digitalRead(DS4);
int b3 = digitalRead(DS3);
int b2 = digitalRead(DS2);
int b1 = digitalRead(DS1);

// Hidupkan LED sesuai dengan tombol yang ditekan
if (b8 == LOW)
{
  Serial.write('8');
}
else if (b7 == LOW)
{
  Serial.write('7');
}
else if (b6 == LOW)
{
  Serial.write('6');
}
else if (b5 == LOW)
{
  Serial.write('5');
}
else if (b4 == LOW)
{
  Serial.write('4');
}
```



```
else if (b3 == LOW)
{
  Serial.write('3');
}
else if (b2 == LOW)
{
  Serial.write('2');
}
else if (b1 == LOW)
{
  Serial.write('1');
}
delay(20);
}
//SLAVE
int led[] = {2, 3, 4, 5, 6, 7, 8, 9};
char message;
void setup()
{
  Serial.begin(9600);
  for (int i = 0; i < 8; i++)
  {
    pinMode(led[i], OUTPUT);
  }
}
void loop()
{
  if (Serial.available())
  {
```

```
message = Serial.read();  
if (message == '1')  
{  
  digitalWrite(led[0], 1);  
}  
else if (message == '2')  
{  
  digitalWrite(led[1], 1);  
}  
else if (message == '3')  
{  
  digitalWrite(led[2], 1);  
}  
else if (message == '4')  
{  
  digitalWrite(led[3], 1);  
}  
else if (message == '5')  
{  
  digitalWrite(led[4], 1);  
}  
else if (message == '6')  
{  
  digitalWrite(led[5], 1);  
}  
else if (message == '7')  
{  
  digitalWrite(led[6], 1);  
}
```

```

else if (message == '8')
{
digitalWrite(led[7], 1);
}
}

delay(20);

digitalWrite(led[0], 0);
digitalWrite(led[1], 0);
digitalWrite(led[2], 0);
digitalWrite(led[3], 0);
digitalWrite(led[4], 0);
digitalWrite(led[5], 0);
digitalWrite(led[6], 0);
digitalWrite(led[7], 0);
}

```


</div><div style="font-family: times; font-size: large;">
</div></div></div><p style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px 0px 15px; padding: 0px; text-align: justify;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">5. Kondisi [Kembali]</p><div style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px; padding: 0px; text-align: justify;"> Kondisi percobaan 1 sesuai modul 3</div><div style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px; padding: 0px; text-align: justify;">
</div><p style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; margin: 0px 0px 15px; padding: 0px; text-align: justify;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;"></p><div style="border: 0px; box-sizing: border-box; font-family: times; font-size: large; 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 Demo[Kembali]</p><div class="separator" style="clear: both; text-align: center;"><object class="BLOG_video_class" contentid="8bfae7e22bf65906" height="266" id="BLOG_video-8bfae7e22bf65906" width="320"></object></div><div class="separator" style="clear: both; text-align: center;">
</div><p></p><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;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;">

7. Download File[Kembali]</p></div></div>
</div></div></div><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: left;"><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;">□ HTML→ klik disini
</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; 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><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><div style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px;"><b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;">□ Datasheet LED → klik disini
<b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;">□ Datasheet Arduino Uno → klik disini
<b style="border: 0px; box-sizing: border-box; margin: 0px; padding: 0px; text-align: justify;">□ Datasheet Switch → <a

https://drive.google.com/file/d/1ijcDHLyAuQfNh_uURzrht_0JjwRuB4/view

klik disini