

```
<div style="text-align: center;"><a href="https://raishaamilia212033.blogspot.com/"><span style="font-family: times;">[KEMBALI KE MENU SEBELUMNYA]</span></a></div>
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<span style="font-family: times;"><br />
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<div style="border: 2px dashed rgb(23, 128, 221); height: 240px; overflow: auto; padding: 10px; text-align: center; width: 330px;">
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<br />
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</span><div style="text-align: left;">
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<a href="#tujuan"><span style="font-family: times;">1. Tujuan</span></a></div>
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<div style="text-align: left;">
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```
<a href="#alat"><span style="font-family: times;">2. Alat dan Bahan</span></a></div>
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<div style="text-align: left;">
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<a href="#dasar"><span style="font-family: times;">3. Dasar Teori</span></a></div>
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<div style="text-align: left;">
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<a href="#prinsip"><span style="font-family: times;">4. Prinsip Kerja</span></a></div>
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<a href="#bentuk"><span style="font-family: times;">5. Bentuk Rangkaian</span></a></div>
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<a href="#video"><span style="font-family: times;">6. Video</span></a></div>
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<a href="#link"><span style="font-family: times;">7. File Download</span></a></div>
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</div>
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</div>
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</center>
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```
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```

APLIKASI COMPARATOR NON-INVERTING
DENGAN V_{ref}

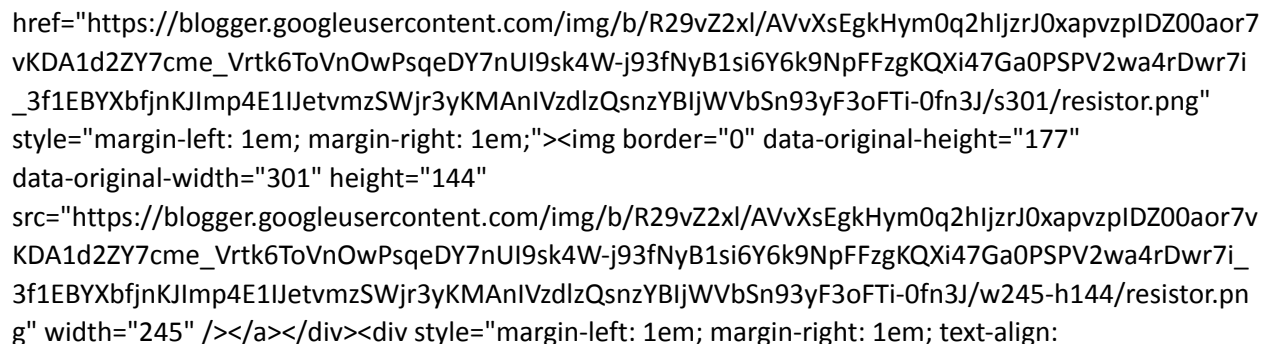
1. Tujuan

Untuk memenuhi tugas elektronika

Untuk mengetahui penerapan dari OP-AMP comparator non-inverting dengan V_{ref} pada rangkaian pengondisi suhu ruangan menggunakan sensor LM35

2. Alat dan Bahan

Resistor



Gambar 1

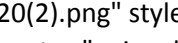
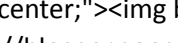
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Specifications	Resistance (Ohms)
Power (Watts)	0.25W, 1/4W
Tolerance	±5%
Packaging	
Bulk	
Composition	Carbon Film
Temperature Coefficient	

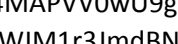
class="MsoNormal" style="line-height: normal; margin-bottom: 15pt;">350ppm/°C</p></td></tr><tr><td style="border: none; padding: 3.75pt; width: 221.1pt;" valign="top" width="295"><p class="MsoNormal" style="line-height: normal; margin-bottom: 15pt;">Lead Free Status</p></td><td style="border: none; padding: 3.75pt; width: 156.9pt;" valign="top" width="209"><p class="MsoNormal" style="line-height: normal; margin-bottom: 15pt;">Lead Free</p></td></tr><tr><td style="background: rgb(249, 249, 249); border: none; padding: 3.75pt; width: 221.1pt;" valign="top" width="295"><p class="MsoNormal" style="line-height: normal; margin-bottom: 15pt;">RoHS Status</p></td><td style="background: rgb(249, 249, 249); border: none; padding: 3.75pt; width: 156.9pt;" valign="top" width="209"><p class="MsoNormal" style="line-height: normal; margin-bottom: 15pt;">RoHS

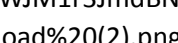
style="background-attachment: initial; background-clip: initial; background-image: initial; background-origin: initial; background-position: initial; background-repeat: initial; background-size: initial;"> </p><div class="separator" style="clear: both; text-align: center;"></div><div class="separator" style="clear: both; text-align: center;">
</div>Fungsi : pemutus, penyambung, modulasi tegangan, dan modulasi sinyal<p></p></div><ul style="text-align: left;">LED<div class="separator" style="clear: both; text-align: center;"></div><div>Fungsi: Sebagai indikator</div><div>
</div><div><div style="background: rgb(255, 255, 255); color: #222222; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; font-size: 13.2px;">Nilai tegangan maksimal LED berdasarkan warna
Infra merah : 1,6 V.
Merah : 1,8 V – 2,1 V
Oranye : 2,2 V.
Kuning : 2,4 V.
Hijau : 2,6 V.
Biru : 3,0 V – 3,5 V.
Putih : 3,0 – 3,6 V.
Ultraviolet : 3,5 V. </div></div><ul style="text-align: left;">Generator<div class="separator" style="clear: both; text-align: center;"> < o: p > < / o: p > < / p > < p \text{ class} = \text{"MsoNormal"} \text{ style} = \text{"font-size: large;"} > < o: p > < / o: p > < / p > < div \text{ style} = \text{"font-size: large; margin-bottom: 0in;"} > < div \text{ class} = \text{"separator"} \text{ style} = \text{"clear: both; text-align: center;"} > < div \text{ class} = \text{"separator"} \text{ style} = \text{"clear: both; text-align: center;"} > < a \text{ href} = \text{"https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEiY2owP_Uwiys-TSOgFgCTG-JjcG6G4MuR0LSQnL6_I8Va4VbjbhT0tROAVNPCGY-Zt3ReqlWNMhGgRkKbK11mB-6hu1DWMq0UQagX9y5BmayV7KwofrYMh6Aq_qMKzL7FwQe-f8H4V_zUJCpumijjWFS7pMDutnyjnaCWZBvXjtZ1TCz4_JrhYglwuEe/s798/Screenshot%20(34)%20+.png"} \text{ style} = \text{"margin-left: 1em; margin-right: 1em;"} > < img \text{ border} = \text{"0"} \text{ data-original-height} = \text{"231"} \text{ data-original-width} = \text{"798"} \text{ height} = \text{"158"} \text{ src} = \text{"https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEiY2owP_Uwiys-TSOgFgCTG-JjcG6G4MuR0LSQnL6_I8Va4VbjbhT0tROAVNPCGY-Zt3ReqlWNMhGgRkKbK11mB-6hu1DWMq0UQagX9y5BmayV7KwofrYMh6Aq_qMKzL7FwQe-f8H4V_zUJCpumijjWFS7pMDutnyjnaCWZBvXjtZ1TCz4_JrhYglwuEe/w544-h$

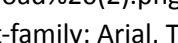
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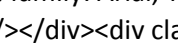



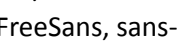
[!\[\]\(42adf31e5d239a27599f86c2b9410b36_img.jpg\)](https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEjRhkk2lc4BkIMB-iqz68kxEsLUVMX8P_87RR-A4MAPVV0wU9gWOqD4Xz4GlwzY0CZpfXimJ542DgAV5DLnRrxrw7kdEH3j_2CCChS_r2Tr56RS8eWuGetpUOqEWJM1r3JmdBNZ9dRnB_W5yii-9FsH1B286kHO0AyLkIbO1MosbheLMCFwLT7-8LXUPM/s236/download%20(2).png)

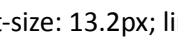


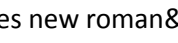


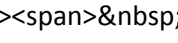


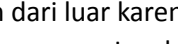


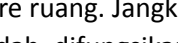


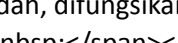


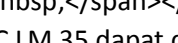


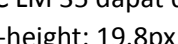


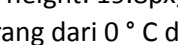


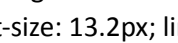


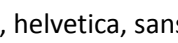


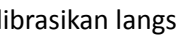


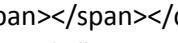


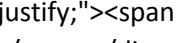


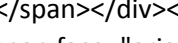


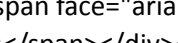


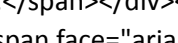


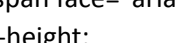


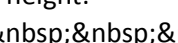


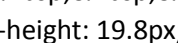


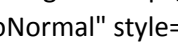




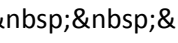


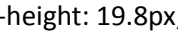


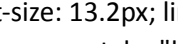


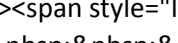


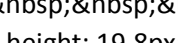












 Range +2 ° C – 150 ° C.</div><div class="MsoNormal" style="font-size: 13.2px; line-height: 19.8px; text-align: justify;"> Dioperasikan pada catu daya 4 V – 30 V.</div><div class="MsoNormal" style="font-size: 13.2px; line-height: 19.8px; text-align: justify;"> Arus yang mengalir kurang dari 60μA</div><div class="MsoNormal" style="font-size: 13.2px; line-height: 19.8px; text-align: justify;"> Pada rangkaian pengkondisi suhu ruangan ini, digunakan sensor LM 35, dimana nantinyaakan menyala secara otomatis saat mendeteksi suhu ruangan telah mencapai suhu^{0}0</sup>, dan penghangat akan menyala secara otomatis saat mendeteksi suhu ruangan ^{16}16</sup></div><div class="MsoNormal" style="background-color: white; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; line-height: 19.8px; text-align: left;"><div class="separator" style="clear: both; text-align: center;">
</div></div><div style="font-size: large;"><b style="font-family: times; font-size: medium; text-align: left;">4. Prinsip Kerja[Kembali]</div><div style="font-size: large;">
</div><div style="font-family: Verdana, Arial, Helvetica, sans-serif; margin-bottom: 0cm; text-align: left; text-indent: 1.27cm;"><div style="background-color: white; color: #222222; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; font-size: 13.2px; text-align: justify; text-indent: 0px;"> Prinsip kerjanya yaitu, Output dari komponen lm35 memiliki satuan tegangan 10 milivolt(mv), output ini kemudian di sambungkan dengan penguat lm741 non-inverting sebesar 10 kali, jadi misalkan output dari lm35 sebesar 10mv maka output dari penguatan sebesar 100mv. Output ini kemudian disambungkan dengan penguat komparator op-amp dilanjutkan dengan motor pendingin dan penghangat, masing-masing op amp pada tiap-tiap motor di beri tegangan dc yang berbeda, pada motor pendingin di beri tegangan sebesar 3v dan penghangat 1,6v. saat masukan pada komparator pendingin besar dari 3v maka, motor pendingin akan aktif, dan saat masukan pada komparator penghangat kurang dari 1,6v maka motor penghangat akan aktif. </div><div style="background-color: white; color: #222222; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; font-size: 13.2px; text-align: justify; text-indent: 0px;">
 Pada rangkaian pengkondisi suhu ruangan ini, digunakan sensor LM 35, dimana nantinya pendingin akan menyala secara otomatis saat mendeteksi suhu ruangan telah mencapai suhu^{30}30</sup></div></div></div>

6. Video & [\[Kembali\]](#)

