

<https://muhammad212039.blogspot.com/2023/05/modul-2.html> **KEMBALI KE MENU SEBELUMNYA**

DAFTAR ISI

1. Jurnal

2. Alat dan Bahan

3. Rangkaian Simulasi

4. Prinsip Kerja Rangkaian

5. Video Rangkaian

6. Analisa

7. Link Download

1. Jurnal

<https://marsanda213014.blogspot.com/p/laporan-akhir-1-m2.html#1> **Kembali**



2. Alat dan Bahan

<https://marsanda213014.blogspot.com/p/laporan-akhir-1-m2.html#3> **Kembali**

a. Jumper

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padding: 0px; text-align: left;">g. Switch
(SW-SPDT)</div><div class="separator" style="border: 0px none; box-sizing:
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Logicprobe</div><div class="separator" style="border: 0px none; box-sizing: border-box; clear: both; color: #444444; cursor: url("https://ani.cursors-4u.net/games/gam-16/gam1571.ani"), url("https://ani.cursors-4u.net/games/gam-16/gam1571.png"), auto; margin: 0px; padding: 0px;"></div></div></div></div><div>3.

Rangkaian Simulasi[Kembali]</div><div><div>

class="separator" style="clear: both; text-align: center; ">
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<div class="separator" style="clear: both; text-align: center; "></div>
<div class="separator" style="clear: both; text-align: center; ">
</div>
</div><div>4. Prinsip Kerja Rangkaian[Kembali]</div><div><p class="MsoListParagraphCxSpFirst">Pada percobaan 1 melihat kondisi JK flip-flop dan D flip flop dalam 7 kondisi input</p><p class="MsoListParagraphCxSpMiddle">JK flip-flop<o:p></o:p></p><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 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(217, 217, 227); box-sizing: border-box; font-size: 16px; margin: 0px 0px 1.25em; text-align: justify; white-space: pre-wrap; ">SR bistable sebelumnya menggunakan input S dan R, tetapi sekarang digantikan oleh input J dan K yang merujuk pada penemu Jack Kilby. Jadi, J = S dan K = R.</p><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 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(217, 217, 227); box-sizing: border-box; font-size: 16px; margin: 1.25em 0px; text-align: justify; white-space: pre-wrap;">Dua gerbang AND 2-input pada SR bistable digantikan oleh dua gerbang NAND 3-input dengan input ketiga terhubung ke output Q dan Q. Keterkaitan ini memungkinkan kondisi sebelumnya yang tidak valid, S = "1" dan R = "1", digunakan untuk menghasilkan aksi "toggle" karena kedua input sekarang terkunci.</p><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 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(217, 217, 227); box-sizing: border-box; font-size: 16px; margin: 1.25em 0px 0px; text-align: justify; white-space: pre-wrap;">Jika rangkaian dalam keadaan "SET", input J memiliki status "1" dan input K memiliki status "0" . Jika rangkaian dalam keadaan "RESET", input K memiliki status "1"dan input J memiliki status "0" . Karena Q dan Q' selalu berbeda, kita dapat menggunakannya untuk mengendalikan input. Ketika kedua input J dan K bernilai logika "1", flip-flop JK melakukan aksi toggle </p><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 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(217, 217, 227); box-sizing: border-box; font-size: 16px; margin: 1.25em 0px 0px; text-align: justify; white-space: pre-wrap;">Hal tersebut dapat terjadi ketika input dari clock memiliki status "1" atau active high</p><p class="MsoListParagraphCxSpMiddle">D flip-flop</p><p class="MsoListParagraphCxSpMiddle">D flip flop memiliki prinsip dasar ketika Clock active rendah maka input D tidak akan berpengaruh terhadap output Q yang mana disebut kondisi don't care. ketika clock active high D akan berpengaruh terhadap output yang mana jika D 1 maka Q akan 1 </p><p class="MsoListParagraphCxSpLast"></p></div><div>
</div><div>5. Video Rangkaian[Kembali]</div><div class="separator" style="clear: both; text-align: center;"><span style="font-family:

[illegible]

yang mana B5 adalah input D dan B6 adalah CL maka input nya akan sama kapan pun. karena input nya sama terus menerus maka jika D 1 maka cl akan 1 yang mana output Q akan 1. jika D 0 maka Cl akan 0 yang mana output akan 0 atau dont care karena clock active low.

3T Timing Diagram :

7. Link Download

Download Rangkaian

Download Datasheet IC 74LS112A

Download Datasheet IC 7474

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