Seven Segment Display (SSD)

Intro

→ *So, in this video, we will see Seven Segment Display (SSD) following the four-step process on which I have already created a video, so let's start.*

Seven Segment Display (SSD)

→ *We use the Seven Segment Display to display the digits from 0 to 9, and it can be also used as a decimal point.*

→ *We call it as a seven-segment display because it consists of seven lines. Each of the line has a particular name, then the middle pins are common, and the "DP" pin is the Decimal point pin.*

→ *Why are there 10 pins instead of 8 in the SSD, that's because we have two types of SSD.*

- *Common Cathode*
- *Common Anode*

→ *So actually, the lines of the SSD are just LEDs and one LED needs two pins to function properly so technically SSD must have 16 pins but there are only 10 so what is done is the CC or the Common Cathode pin is taking all the negative charge for all the*

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LEDs and the other pins of the LEDs should be given a positive charge vice-versa for the CA or the Common Anode. One cc/ca for another four pins on each side.

Real-Time Applications

- *Digital watches*
- *Digital Clocks*
- *Multimeter*

Online Circuit Simulation

→ *Let's open our Tinker CAD, then we create a new project, and then we will simply drag some basic components like Bread Board, Battery, and a LED. No SSD. Will drag an SSD.*

→ *We will change the type of the SSD to cathode, it doesn't change anything. Then we will drag a resistor, don't connect the LEDs directly to the power rails it can harm the LEDs. 1kΩ is enough*

→ *Let's do the connections so first of all, we connect the resistor to any random strip of the Bread Board then we will connect the positive terminal of the battery to the resistor's 1st Terminal, then we will connect the negative terminal of the battery of the to negative power rail also we will connect the 2nd Terminal of the battery to the positive power rail then we will connect another power rails to the active power rails.*
We will connect only one common pin to its respective charge

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mine is CA so I will connect it to the negative power rail. Now you can connect any LEDs to the common pin's opposite charge, and that will glow. For example, I want to display the number five, then I will give charge to a, f, b, c and e.

Practical experimentation

→ *Components Required:*

- *An SSD*
- *A Resistor*
- *A Breadboard*
- *A Battery*
- *Some Jumper wires*

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We will connect only one common pin to its respective charge mine is CA so I will connect it to the negative power rail. Now you can connect any LEDs to the common pin's opposite charge, and that will glow. For example, I want to display the number five, then I will give charge to a, f, b, c and e.

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Outro

→ ***That's all for this video and I will see you in this next one until then BYE BYE!!***

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