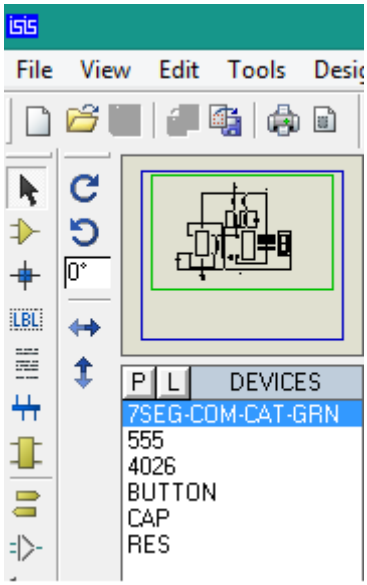
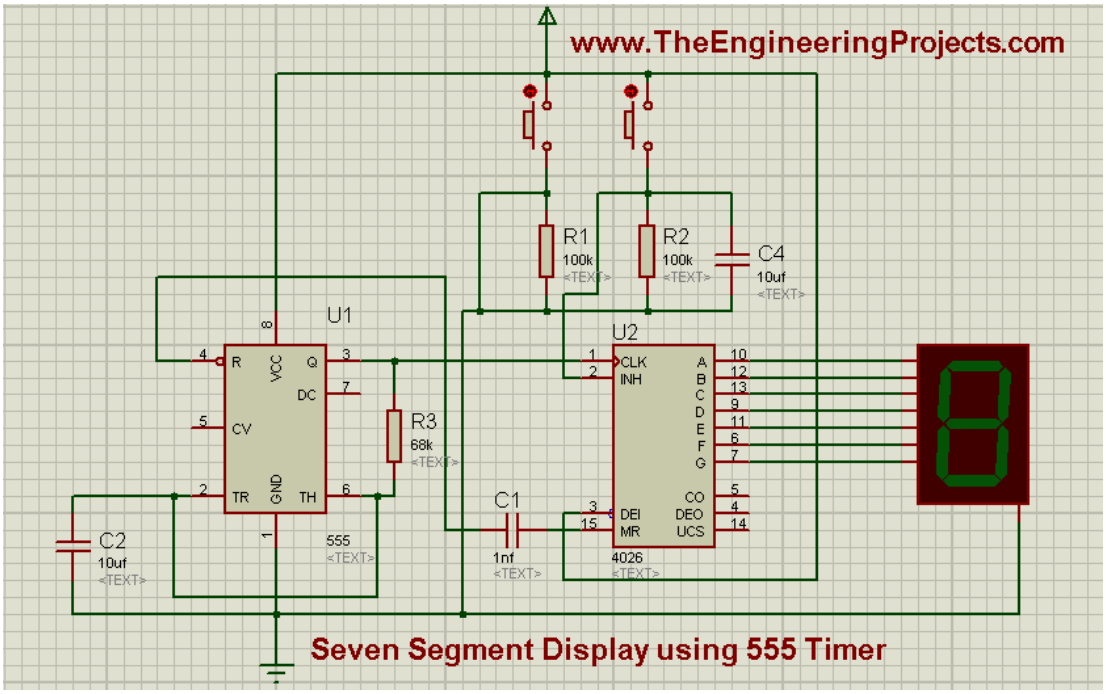
Seven Segment Display Using 555 Timer

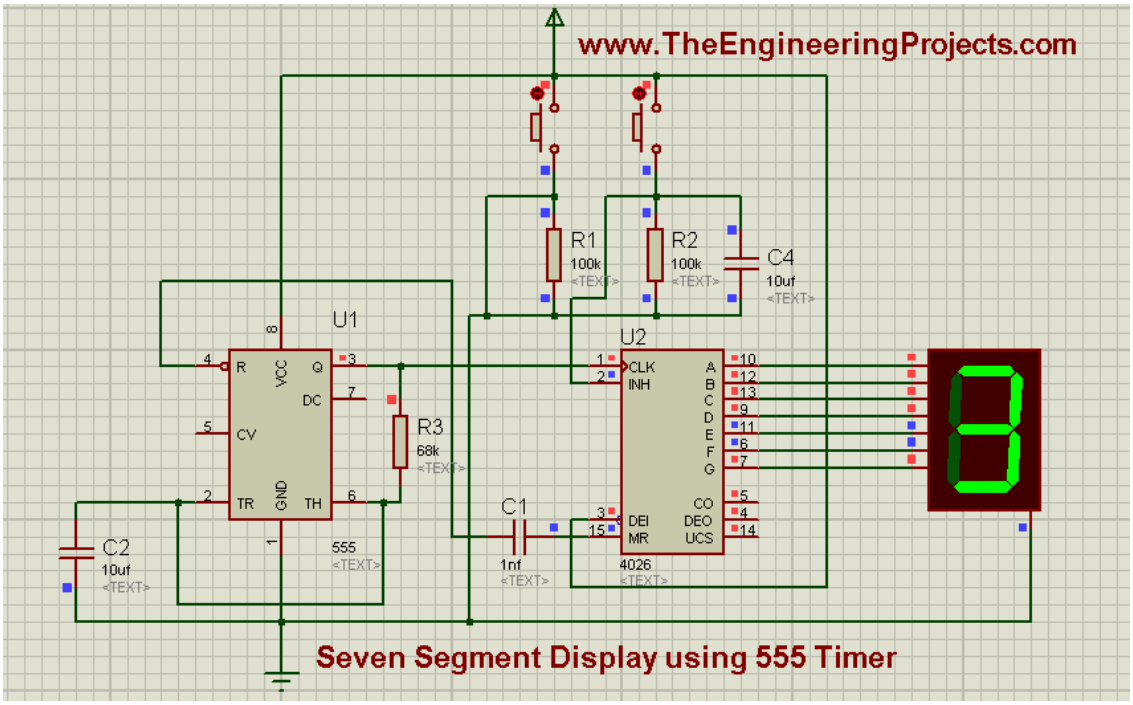
- First of all place all the components in your Proteus workspace, as shown in the image given below:



- First of all 555 Timer is installed, after that a Shift Register is added. 555 Timer will give clock to the Shift Register. Since we are using common cathode arrangement. So, the 7 input pin of SSD are connected to the output pins of Shift Register and the common cathode pin is connected to circuit's main cathode. If you have placed all the components in their exact positions and all the connections are OK. then, the resultant simulation will look like as shown in the image below:



- Now if you look closely at the upper portion of the image then, you will notice that i have added 2 buttons in the circuit. Left Button in Button # 1 and Right Button is Button # 2.
- If both the But



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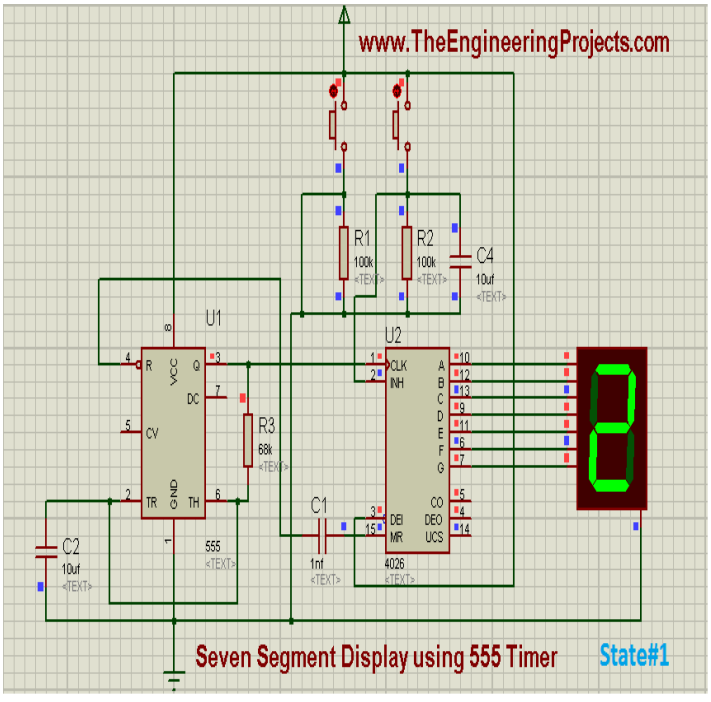
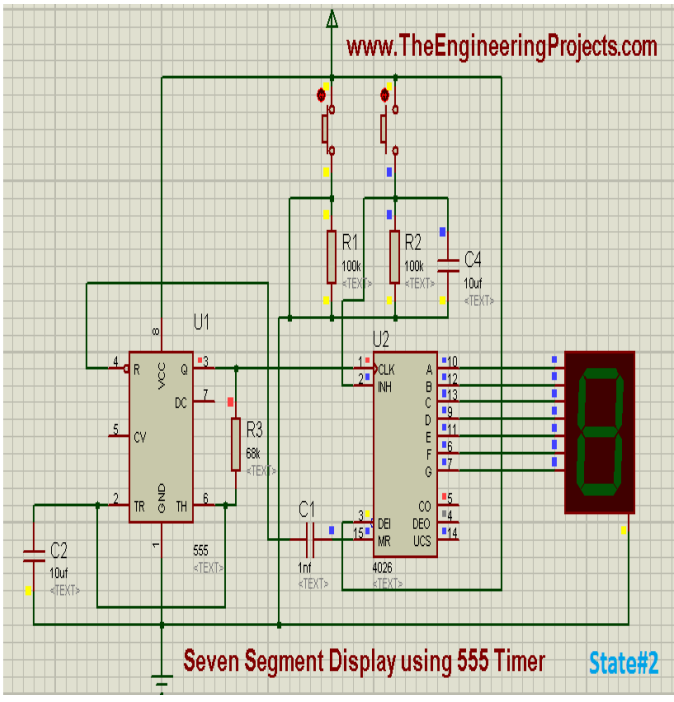
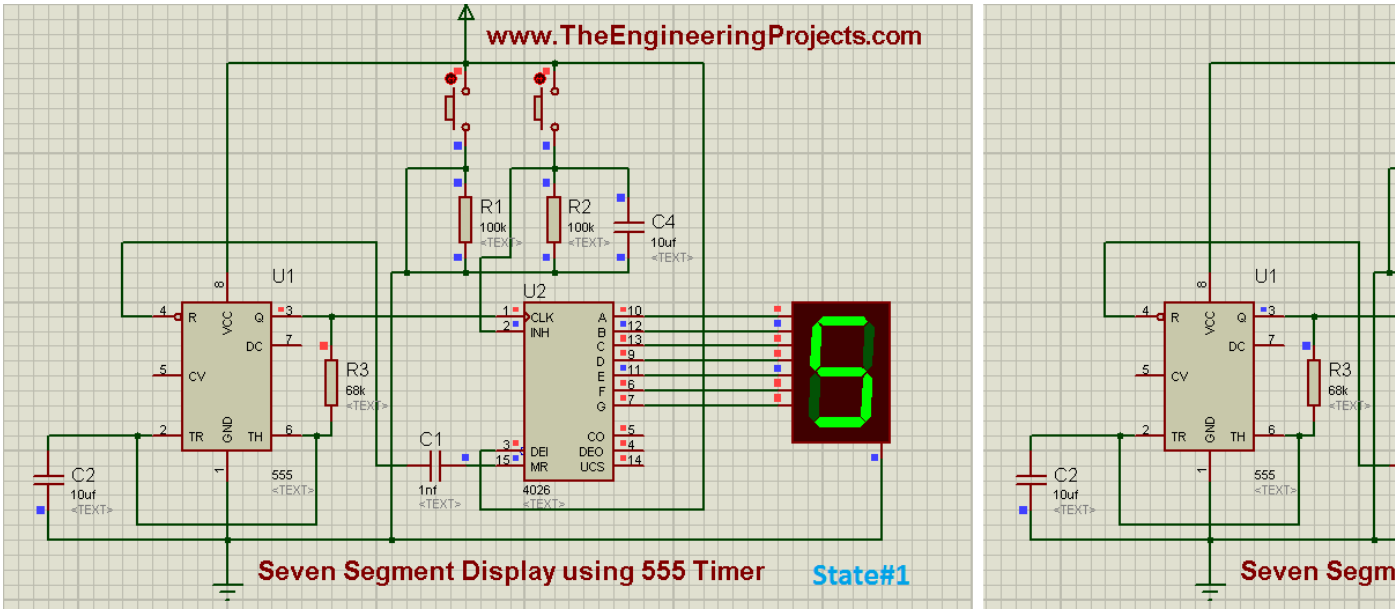
- tons are kept open and when you will run the simulation then, numerical values will start to come on seven segment display. you can also see it in the below image:

- Now the switching of button # 1 includes a very interesting feature. First of all play the simulation and Digits will start to run on Seven Segment Display and at any stage when you will press Button # 1 then Seven segment display will vanish but counting will keep on going in the back. And when you will open the Button#1 again then it will show that digit, up-to which counting have reached. Below is a very interesting feature included:





- During State#1 when Seven Segment Display was showing digit no.2 , we pressed button#1 then, display vanished which can be seen in the state#2. After that when we re-opened the switch#1 then, Seven segment display didn't show the digit no.3 but it shows digit # 8. and this thing can be seen at state#3.
- Now moving forward, the function of switch # 2 is very simple and easy. During simulation running, when we will press the Button # 2 at any instant then, display will immediately stop at that point. So, we can say that this project can also be used as stop watch and button # 2 controls the stop watch. It can also be seen in the image below:



Seven Segments Displays have a large no of applications. Some of them are listed below:

1. Digital Clocks.
2. Electronic Meters.
3. Basic Calculators.
4. Electronic Devices to Display Numerical Values. (Generally 14-segments or 16-segments display is used to display full alphanumeric values).

Alright friends, that's all for today, I hope I have conveyed some knowledge and helped you people in some way. If you have some queries, then ask in comments. Subscribe us via email to get these tutorials straight in your inbox.

Till next tutorial, take care and be safe !!!