



EECS 2070 02 Fall 2021

Lab 0

FPGA Board Test

黃稚存

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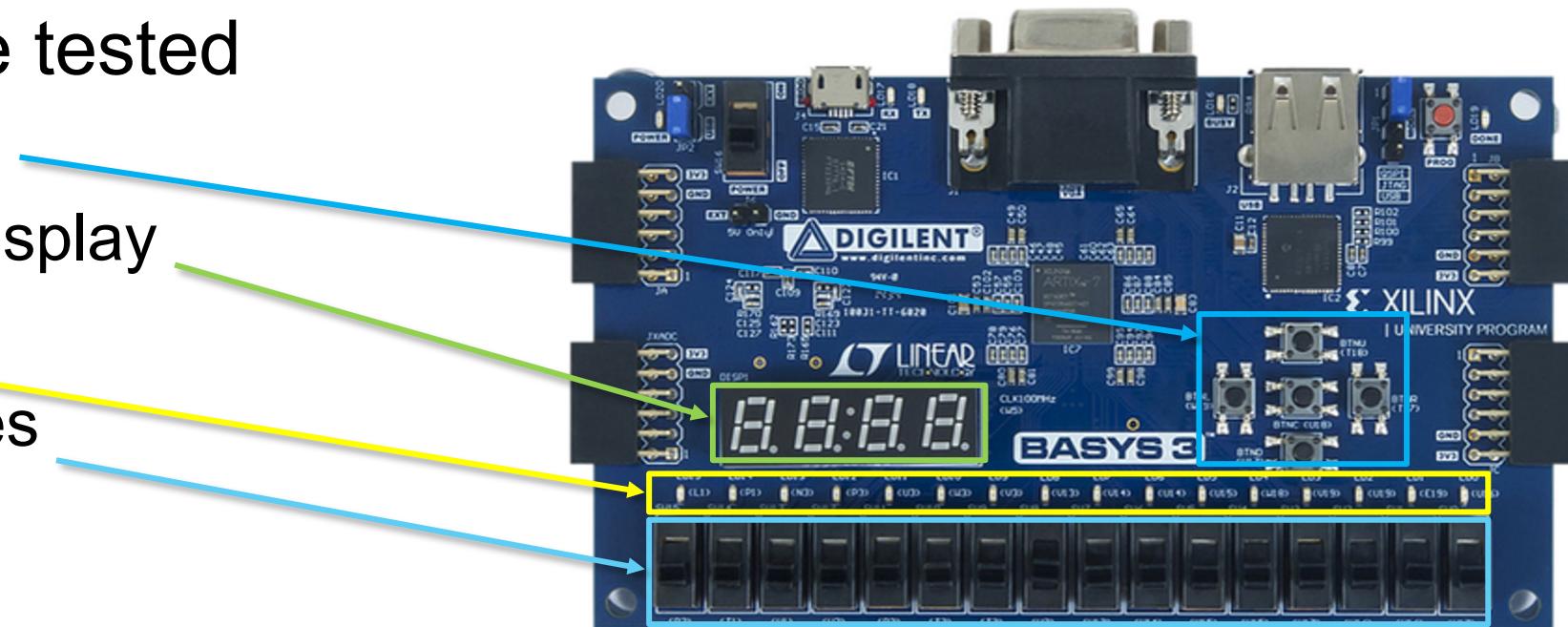


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Lab 0-2

Test FPGA Board using Bit File: test.bit

- Bit file test.bit is provided to for you to test the Basys 3 FPGA board
- The IOs to be tested
 - Pushbuttons
 - 7-segment display
 - LEDs
 - Slide switches



Program FPGA Device with Bit File

- Please refers to “Lecture 03 Vivado Tutorial for Fpga Implementation” for the instructions
 - ◆ Pages 44-46

How to Test

- Or refer to the demo clip:

<https://drive.google.com/file/d/1H9oaKr-OAQiZvuG260TASVvABEnsrcof/view?usp=sharing>

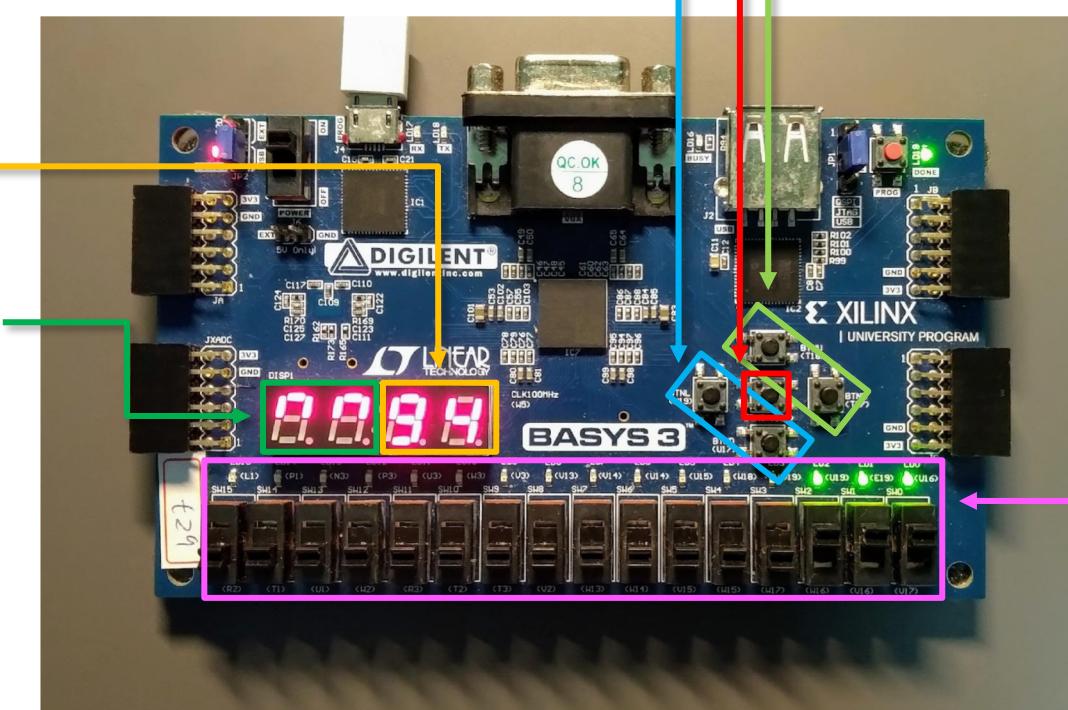
The right two digits of 7-segment display present the counting value between 0 to 99.

The left two digits of 7-segment display indicate the counting direction.

Counting up:



Counting down:



btnC resets the counter to 0 and its direction to up.

btnU and btnR change the counter's direction to up.

btnD and btnL change the counter's direction to down.