



# DESIGN PROJECT

**DIGITAL LOGIC DESIGN**  
**ECE-2700**

**Caleb Bacon**

**Suha Eshaq**

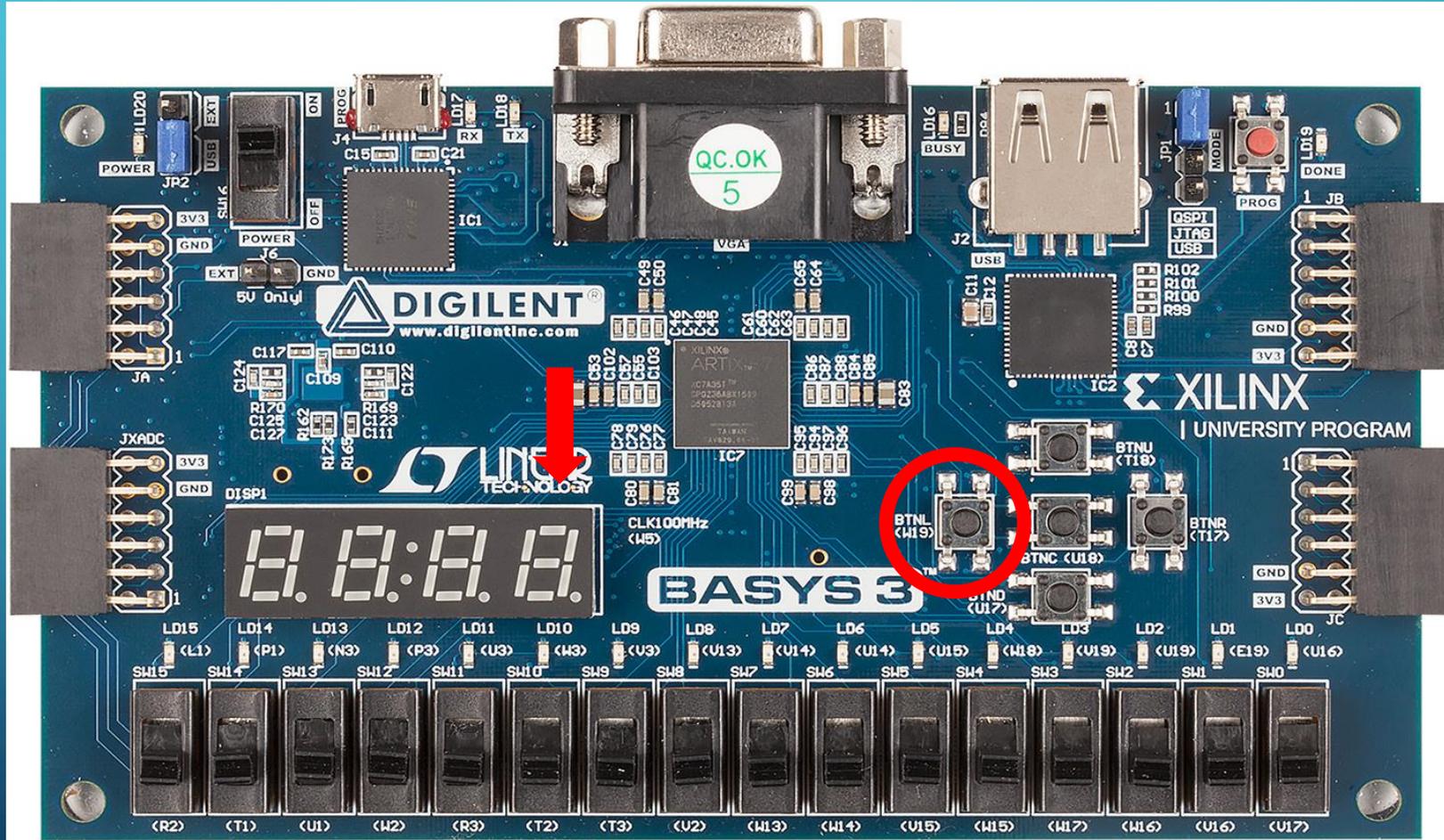
**Wissam Isaac**

**Cody Wilson**

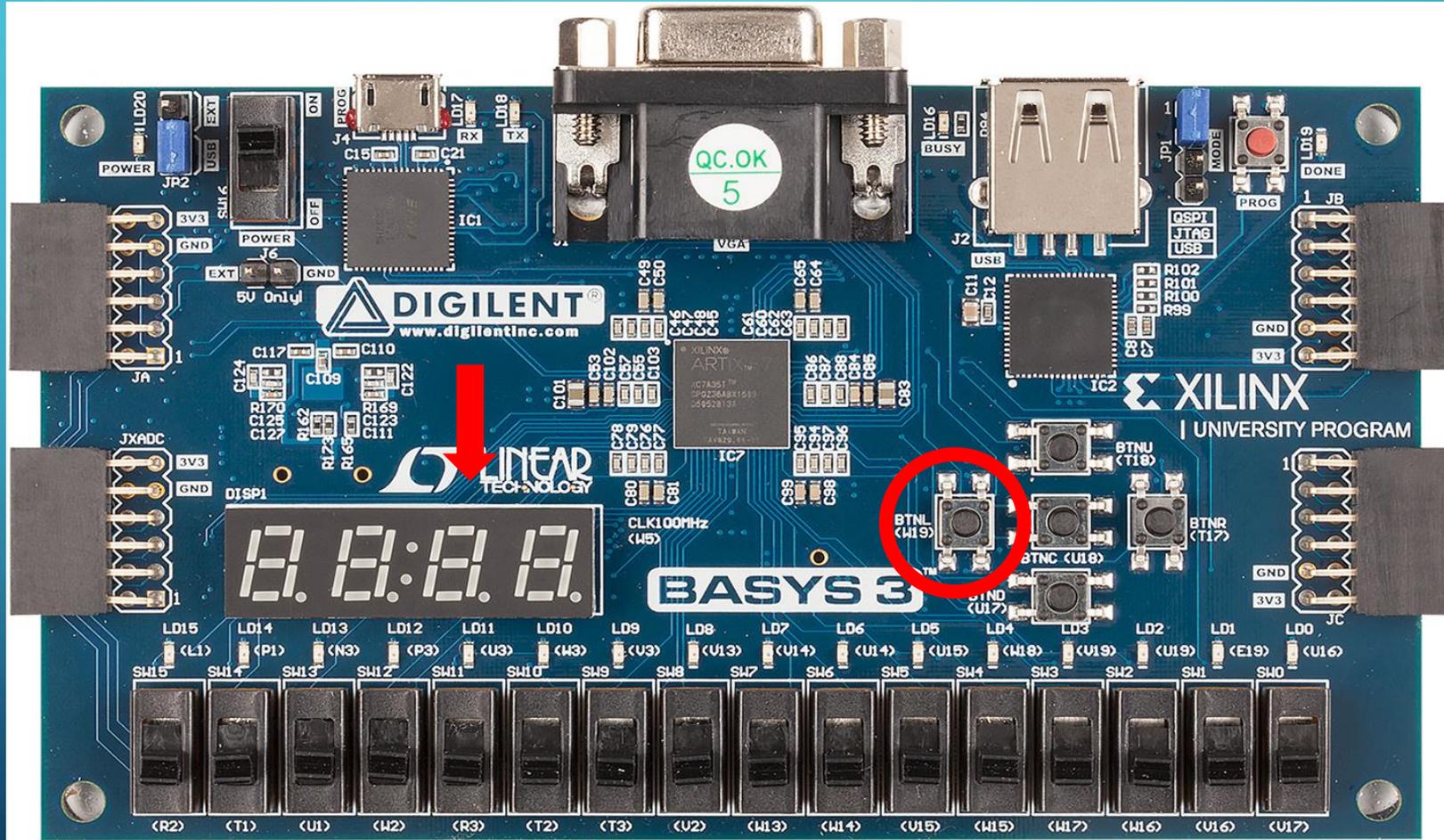
# DECIMAL TO BINARY CONVERTER

- A user will be able to select any decimal number in the range of 0 – 9999 that will be displayed on the four-seven segment displays on the Basys 3 board.
- Have the ability to switch between ones, tens, hundreds and thousands place using right and left buttons.
- A user will have a range of 0-9 for each place using up and down button on each seven segment display.
- Finally, the result of binary number will be represented through the LEDs on the Basys 3 board.

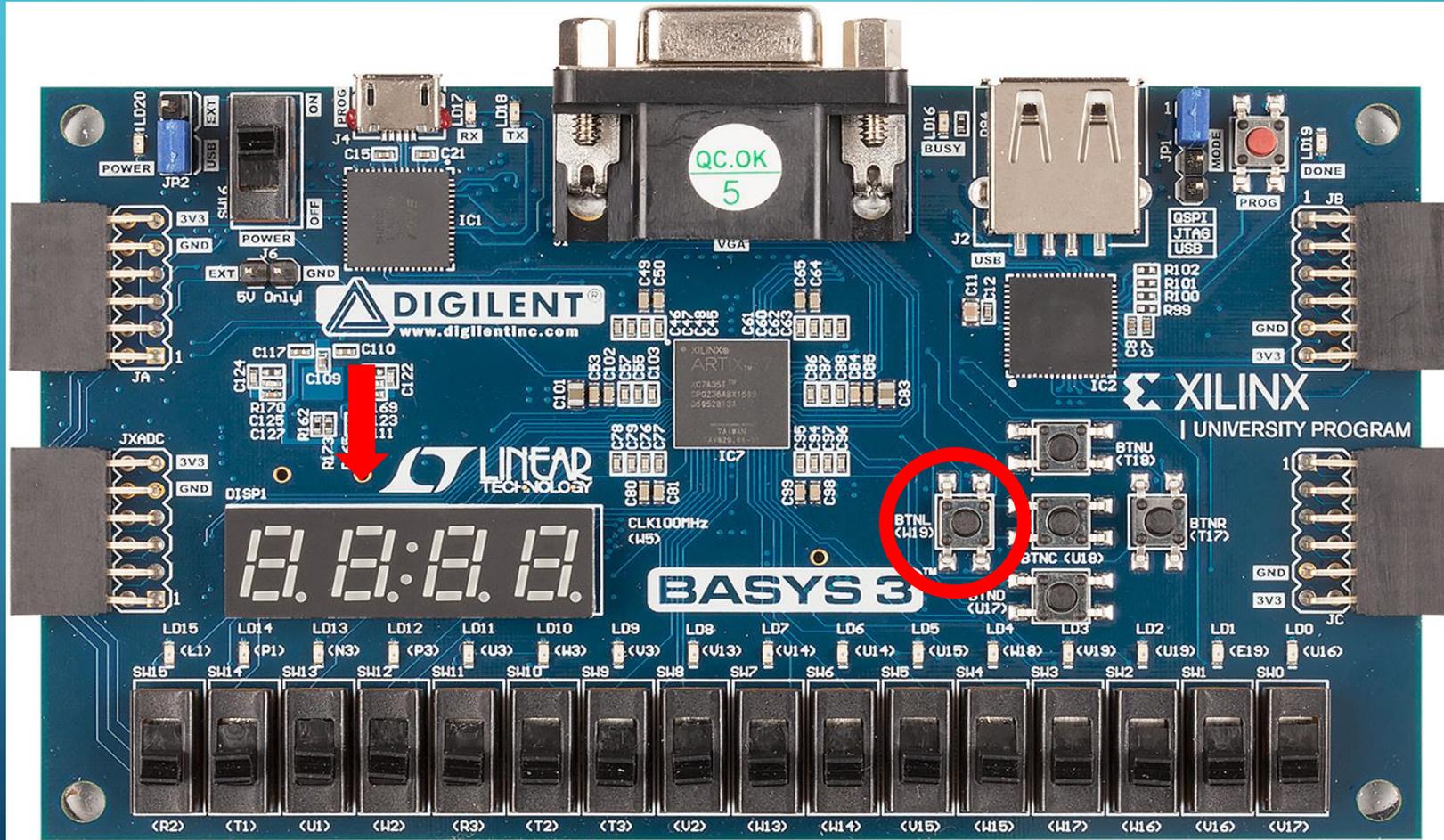
# LEFT AND RIGHT BUTTONS



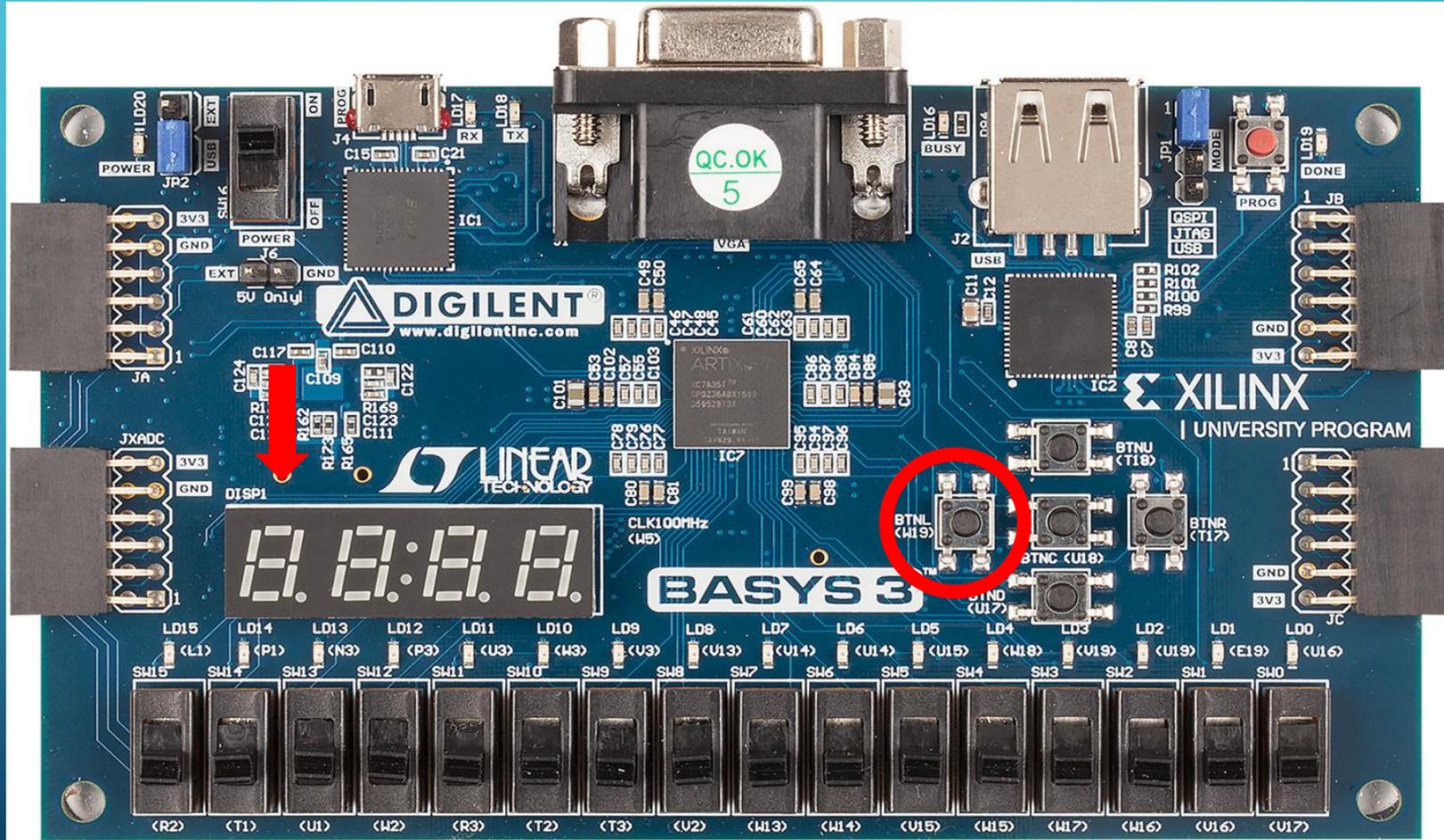
# LEFT AND RIGHT BUTTONS



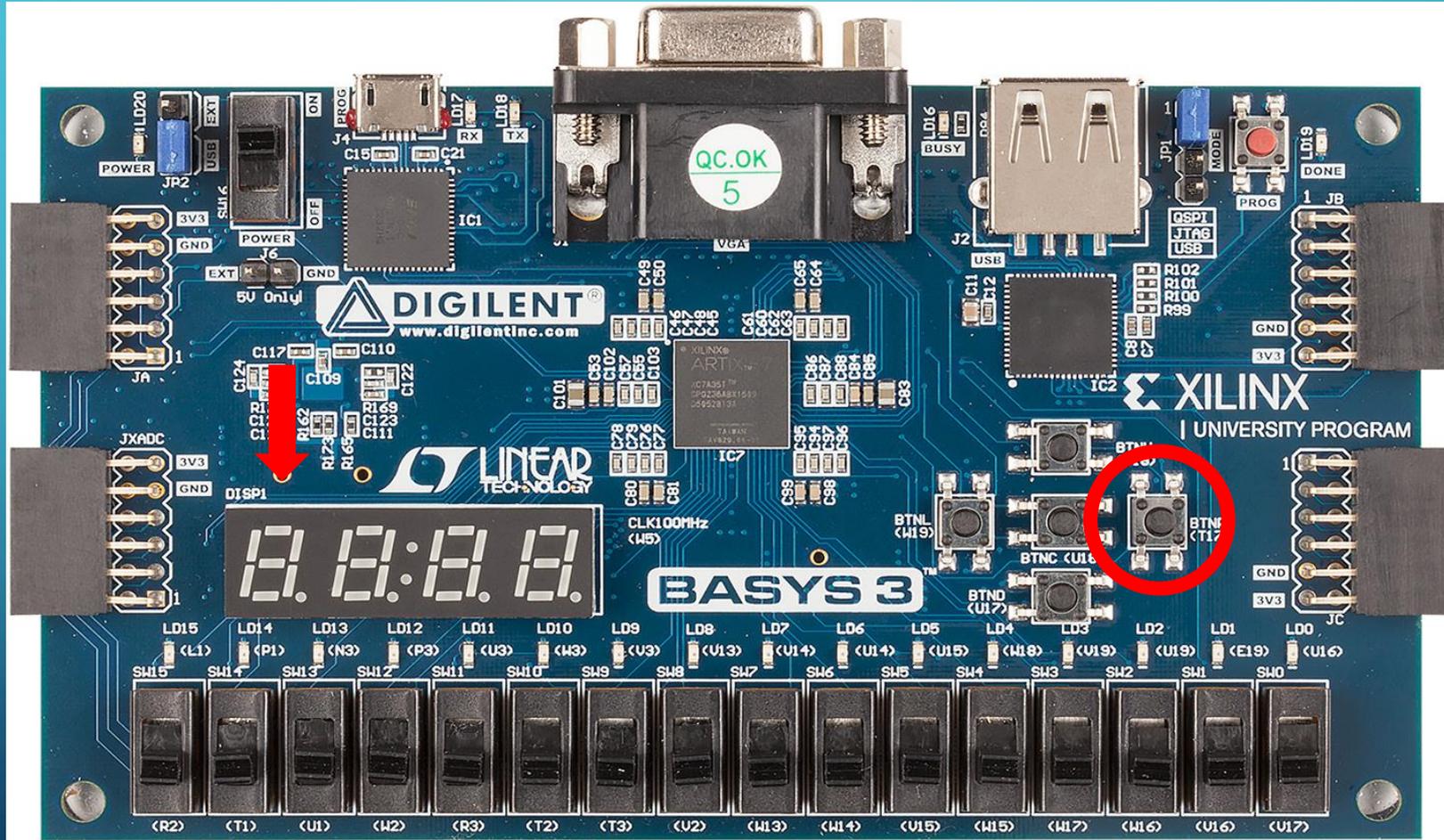
# LEFT AND RIGHT BUTTONS



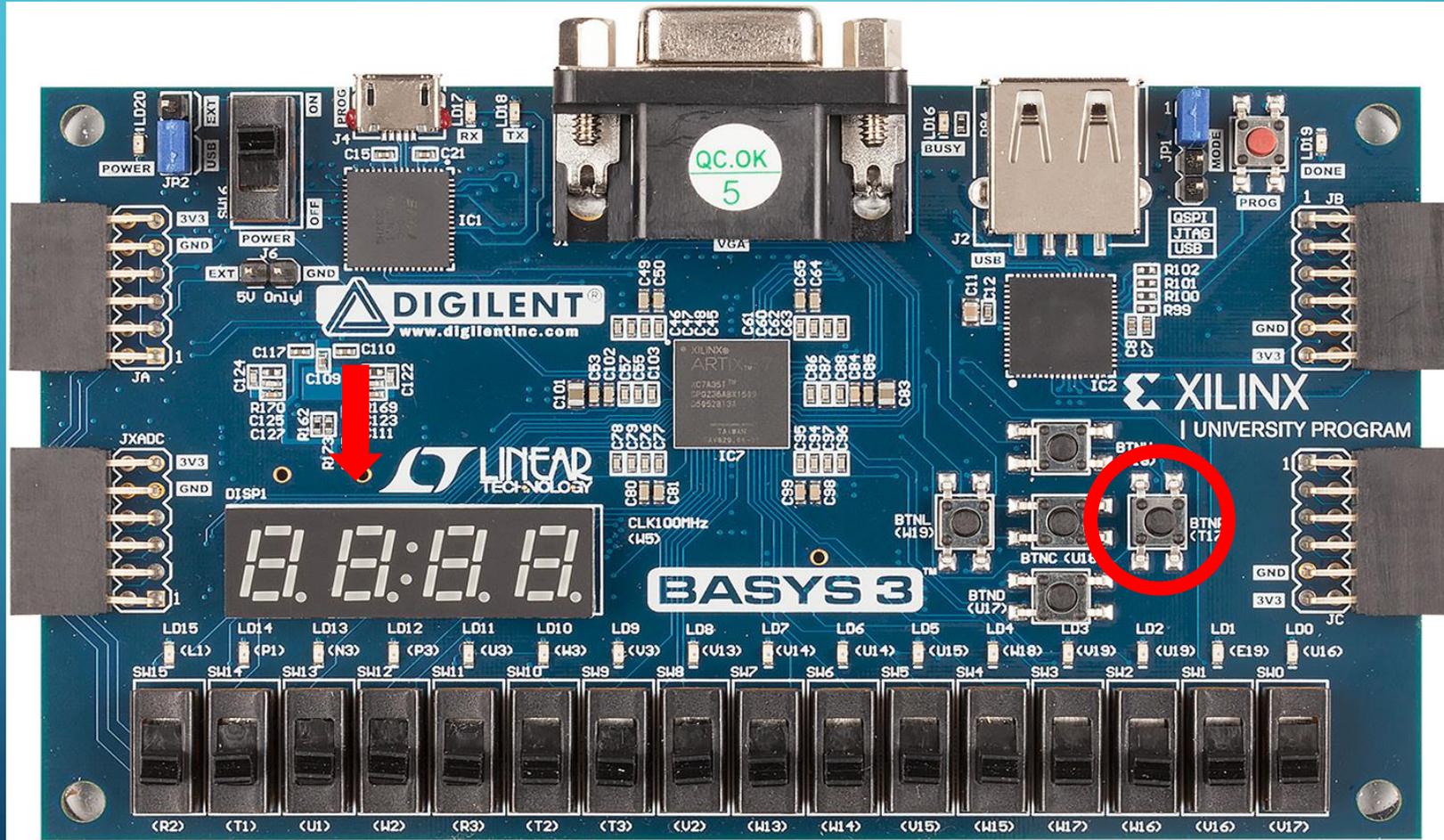
# LEFT AND RIGHT BUTTONS



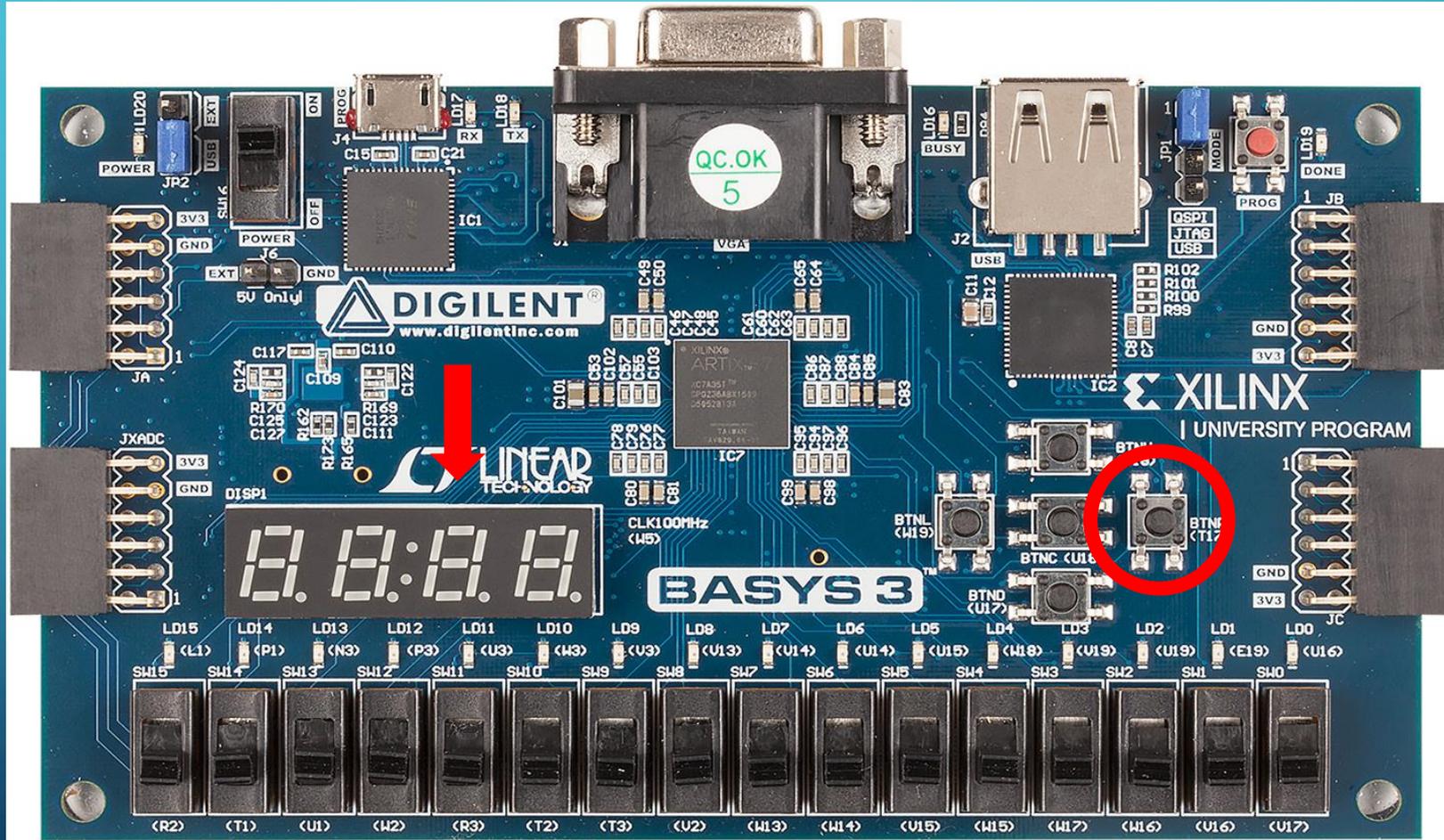
# LEFT AND RIGHT BUTTONS



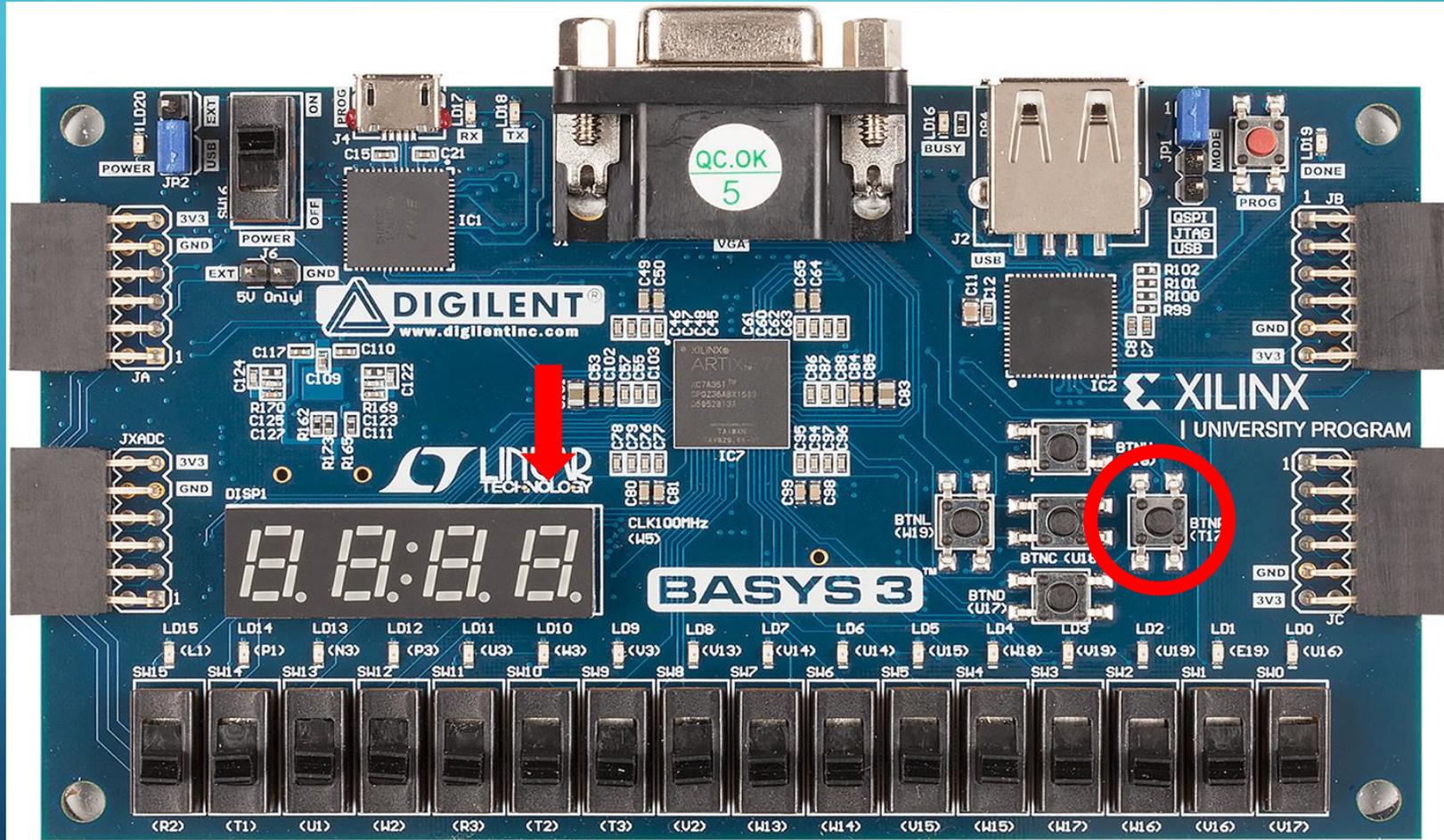
# LEFT AND RIGHT BUTTONS



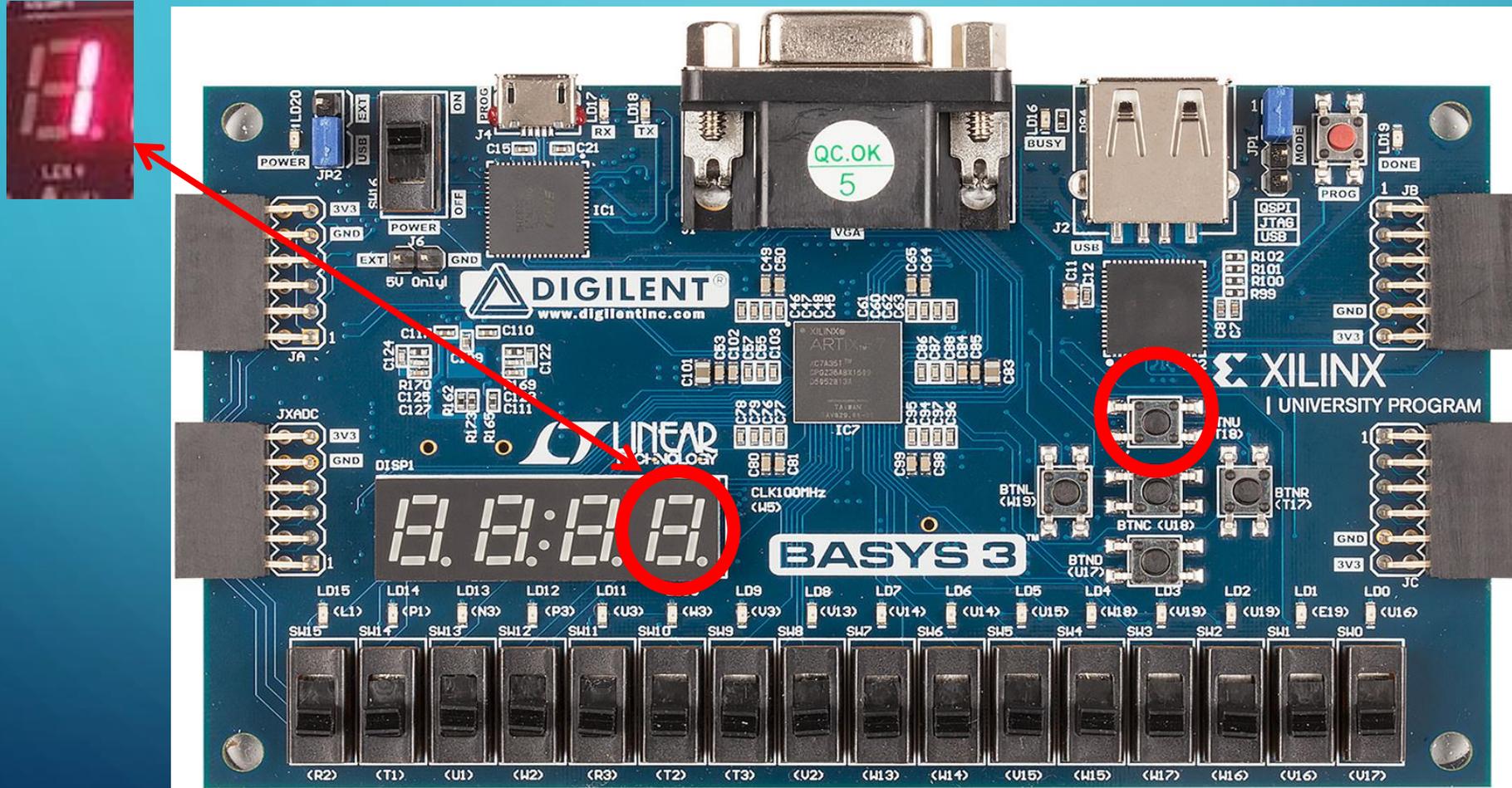
# LEFT AND RIGHT BUTTONS



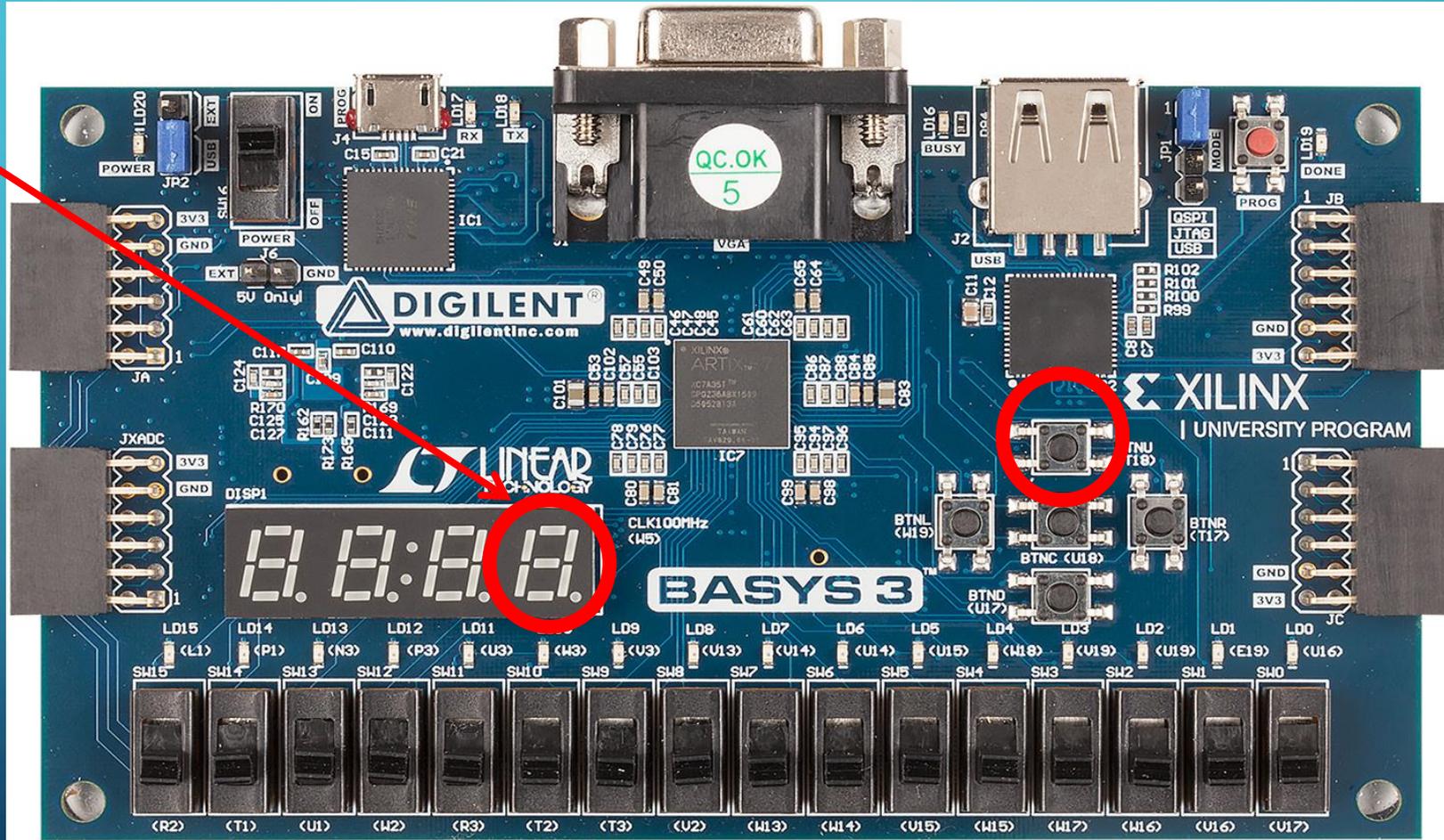
# LEFT AND RIGHT BUTTONS



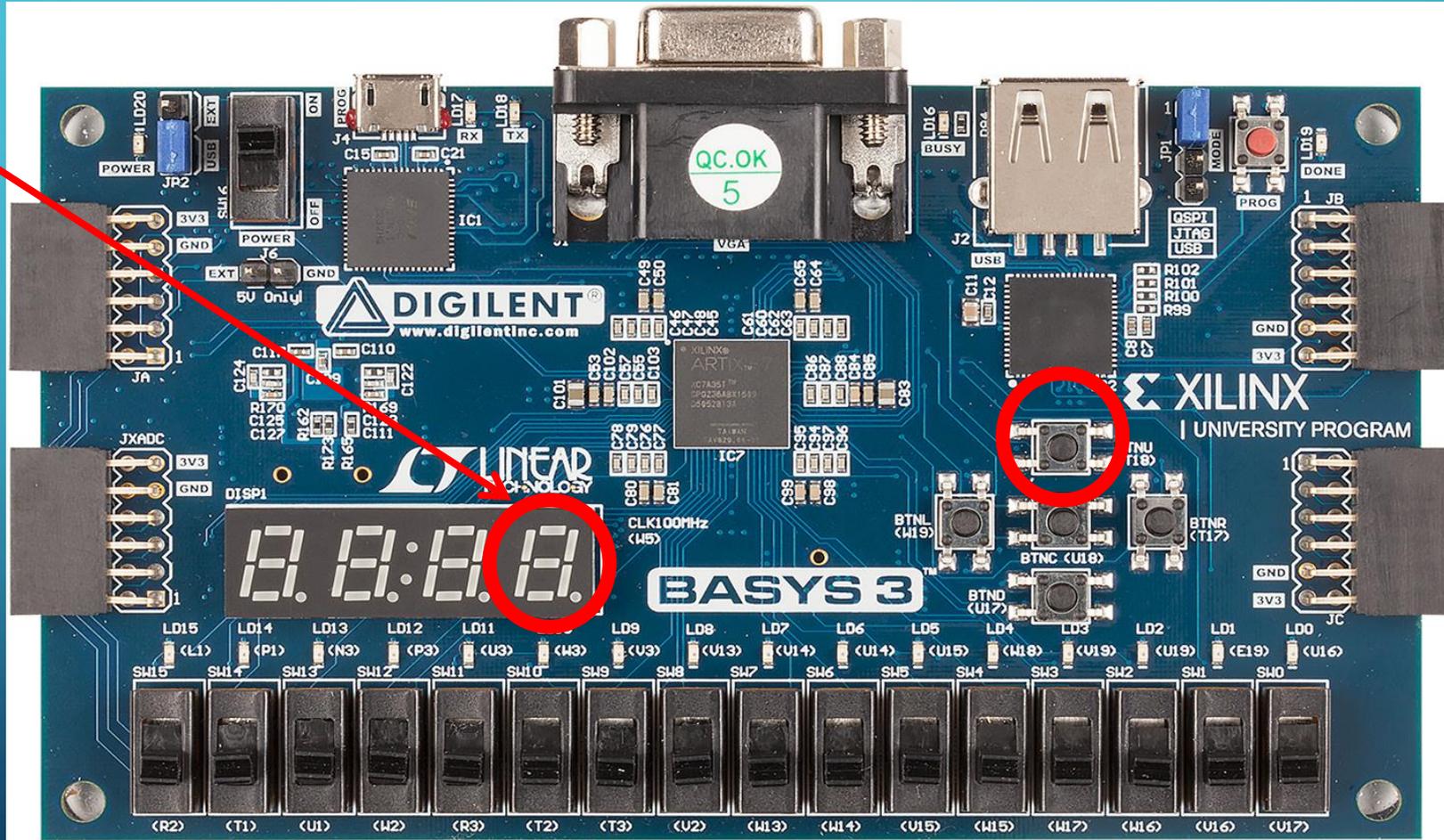
# UP AND DOWN BUTTONS



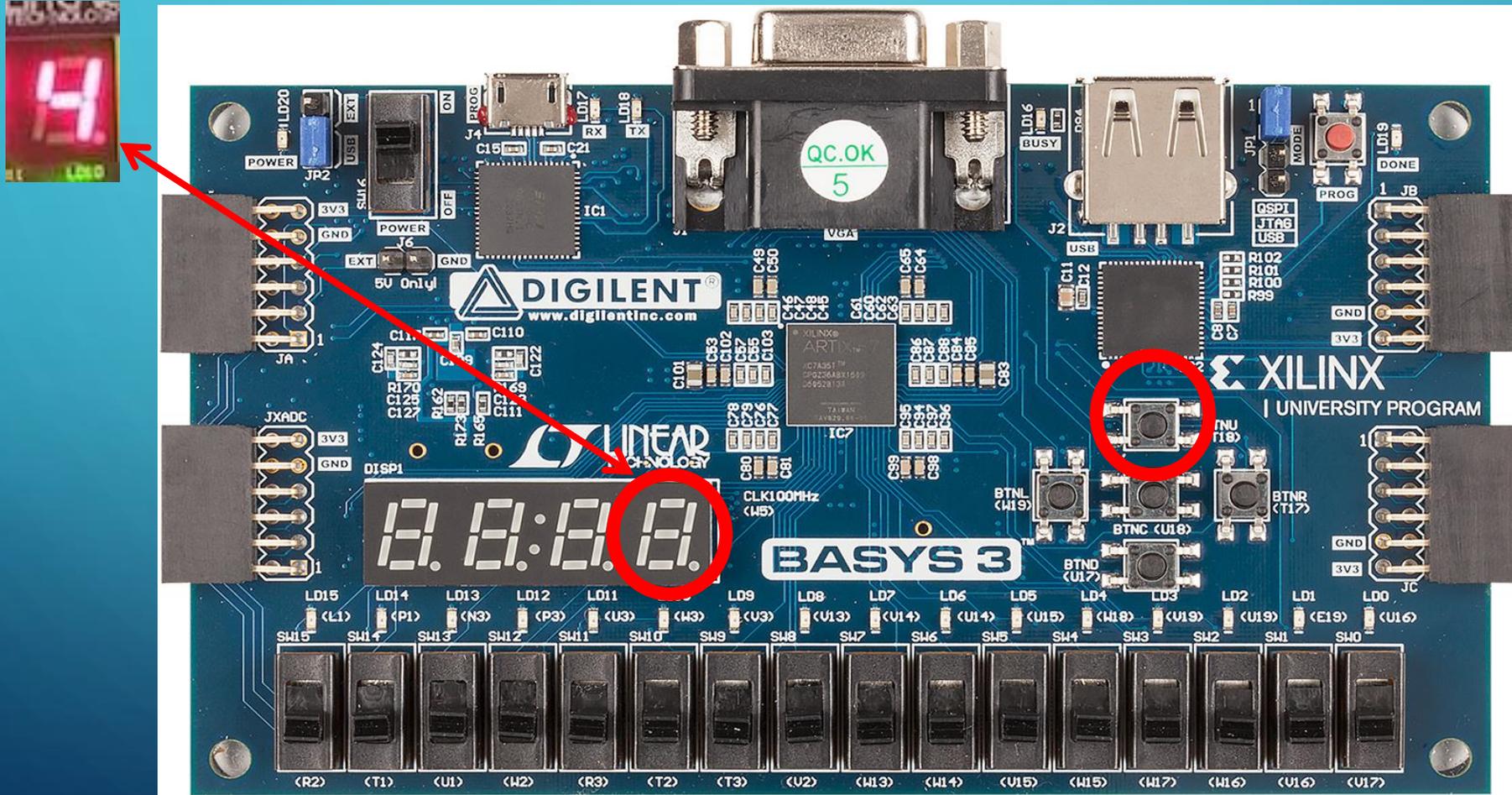
# UP AND DOWN BUTTONS



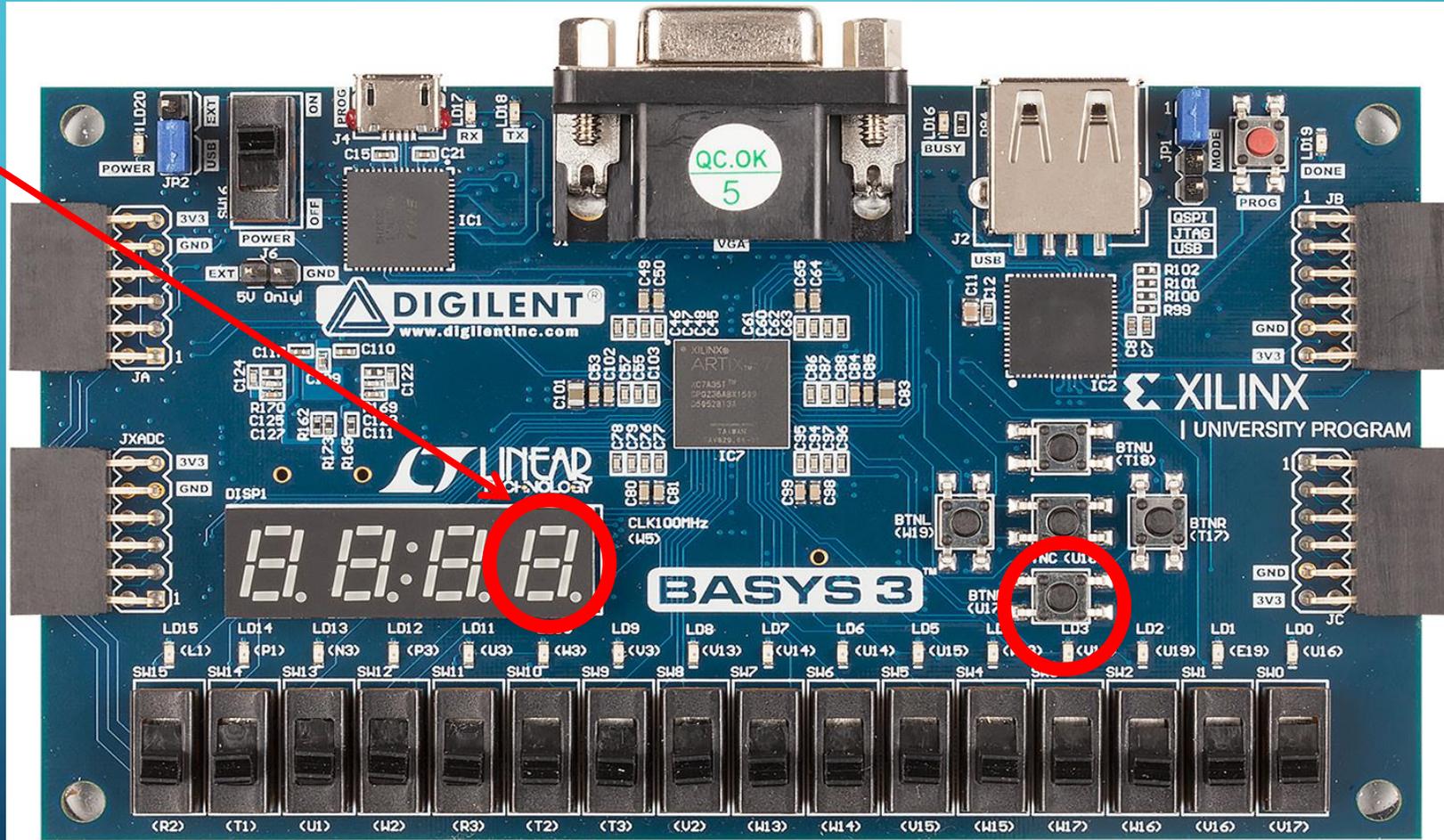
# UP AND DOWN BUTTONS



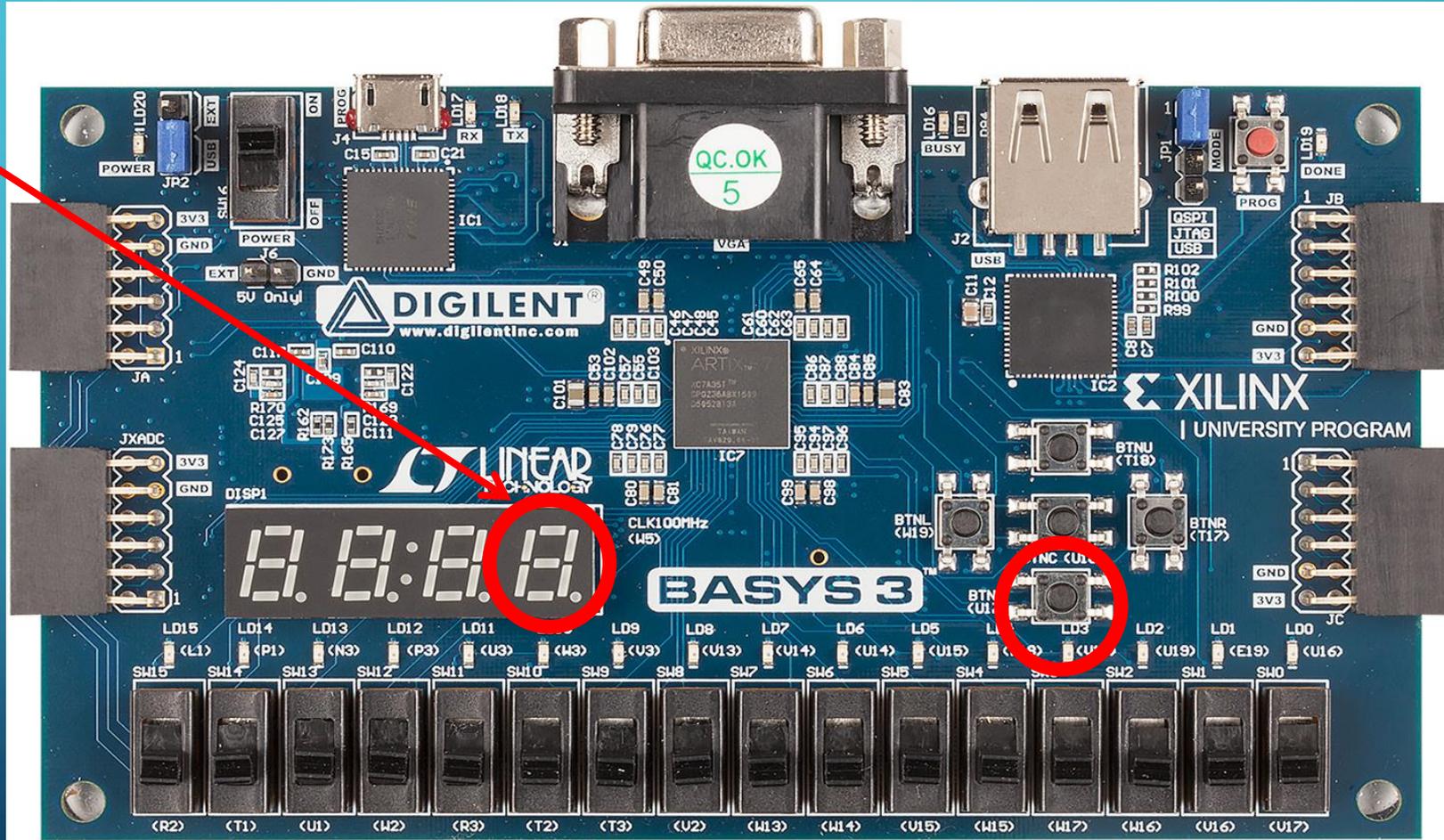
# UP AND DOWN BUTTONS



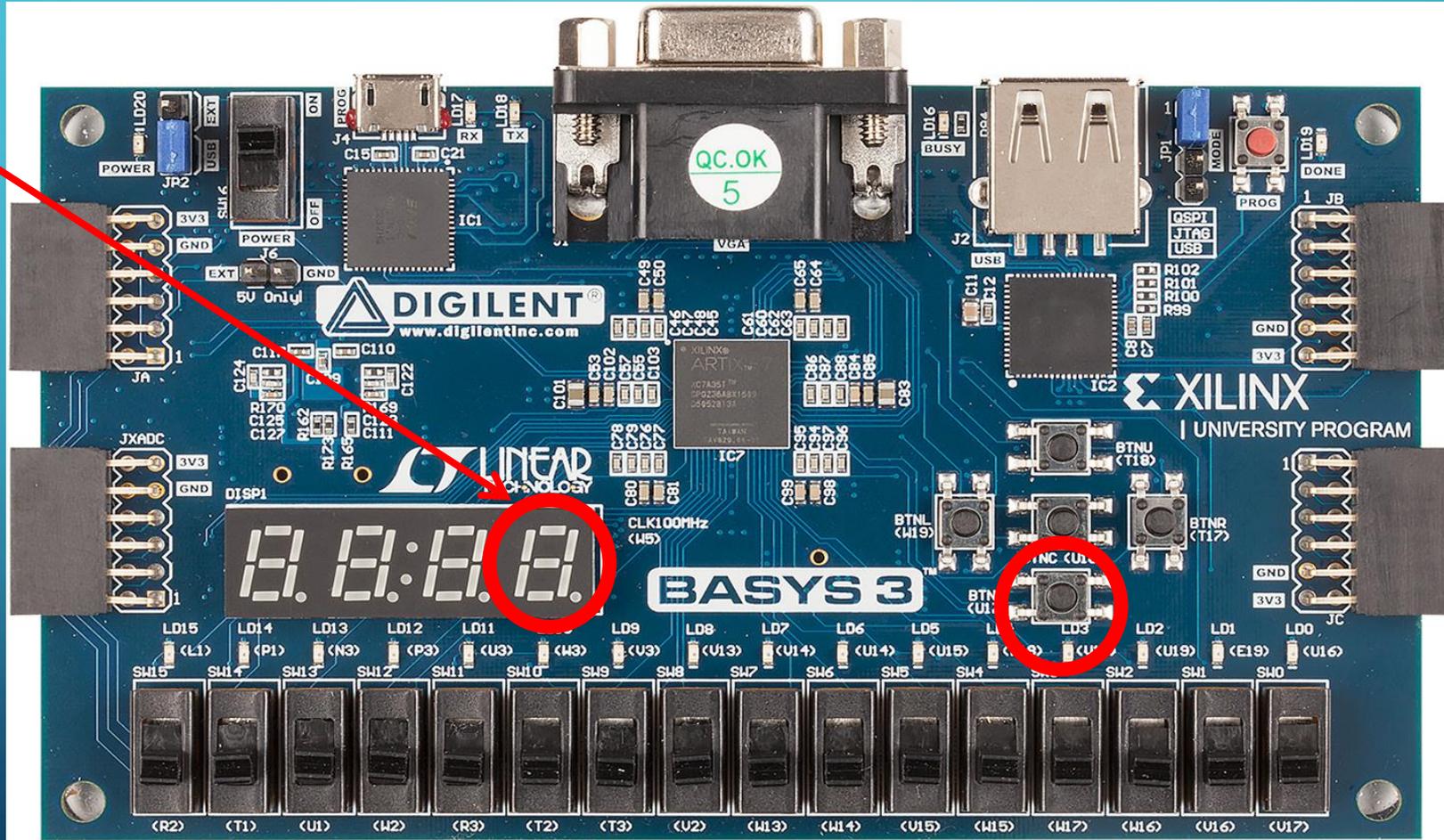
# UP AND DOWN BUTTONS



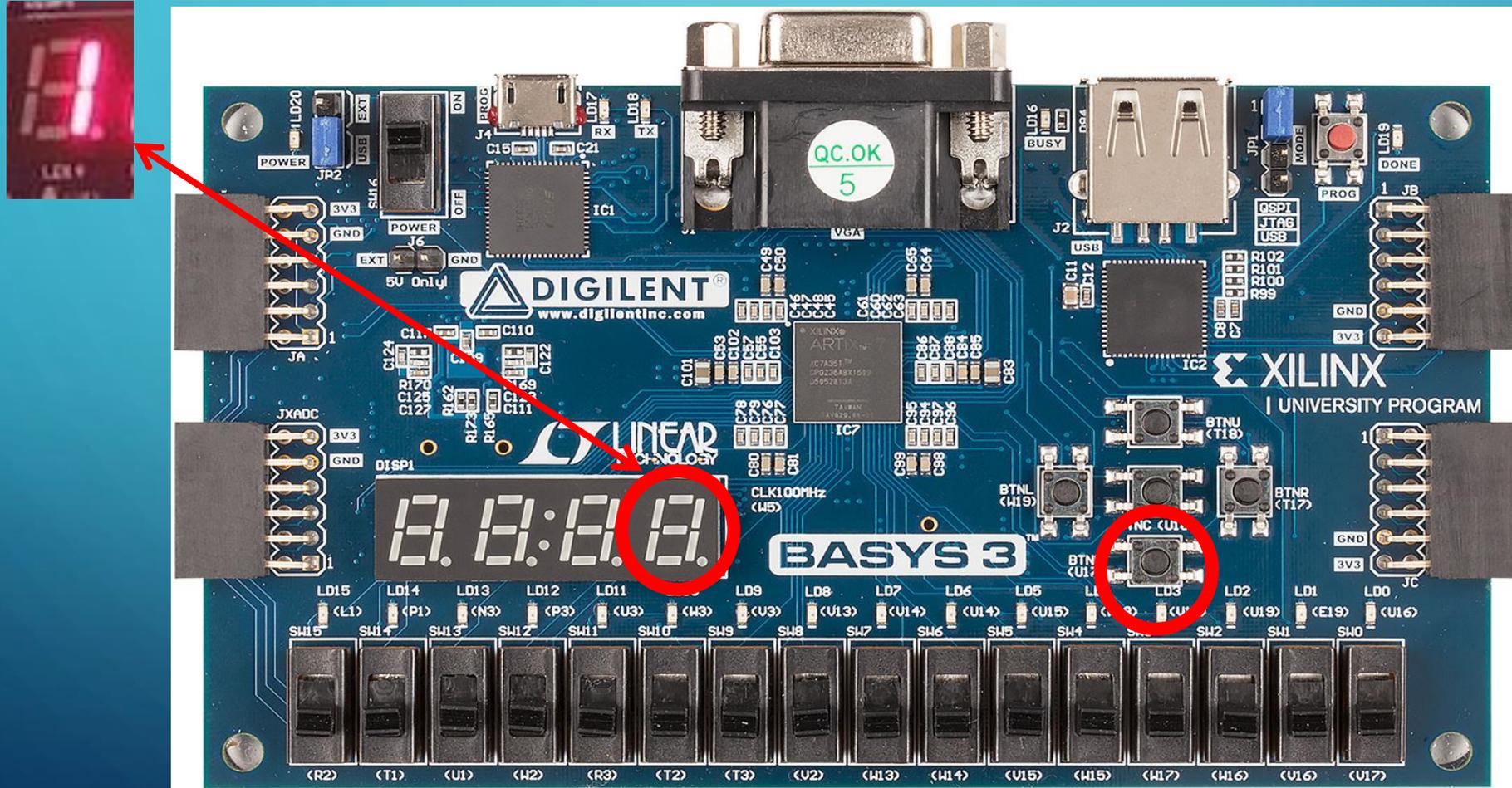
# UP AND DOWN BUTTONS



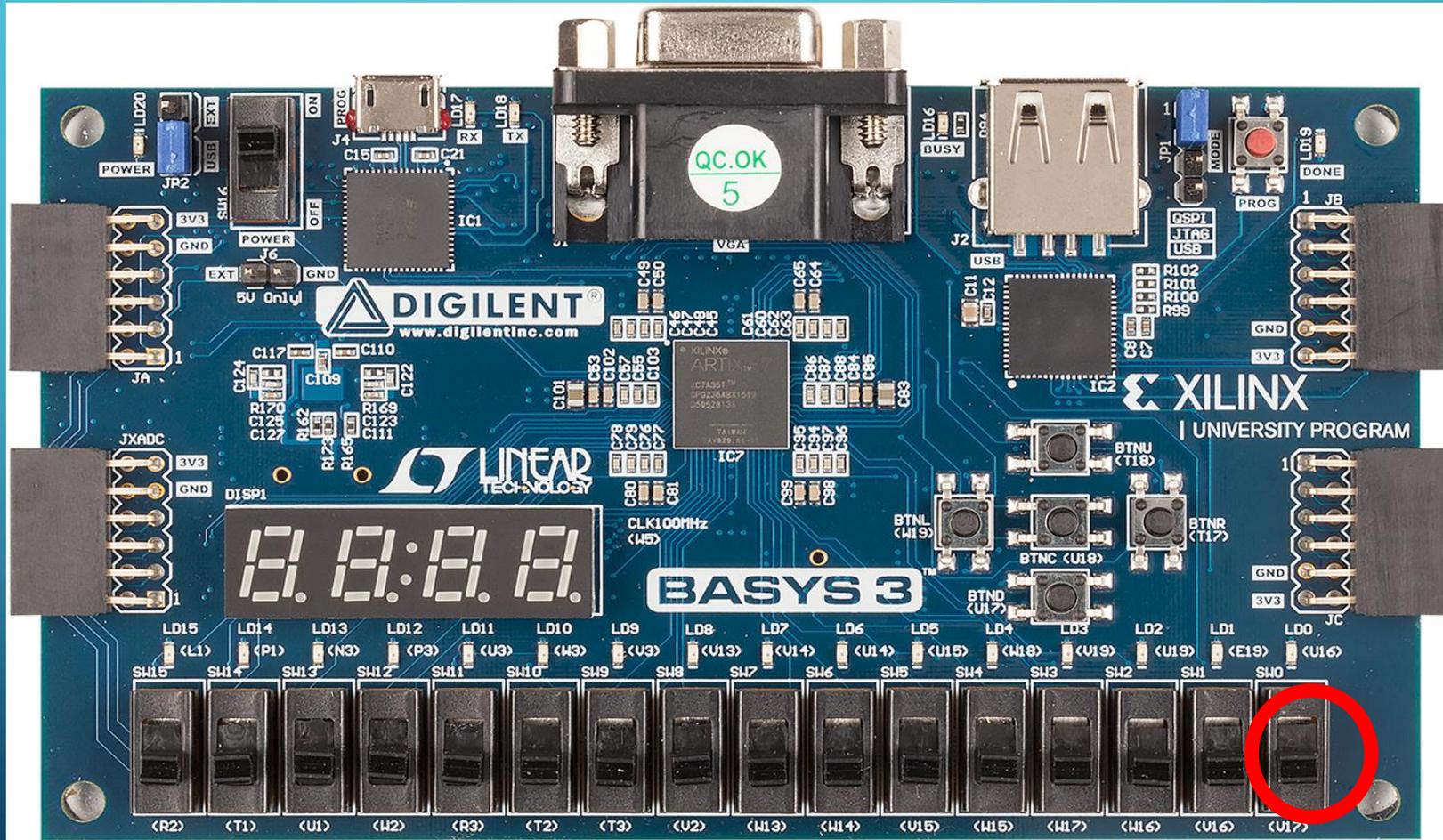
# UP AND DOWN BUTTONS



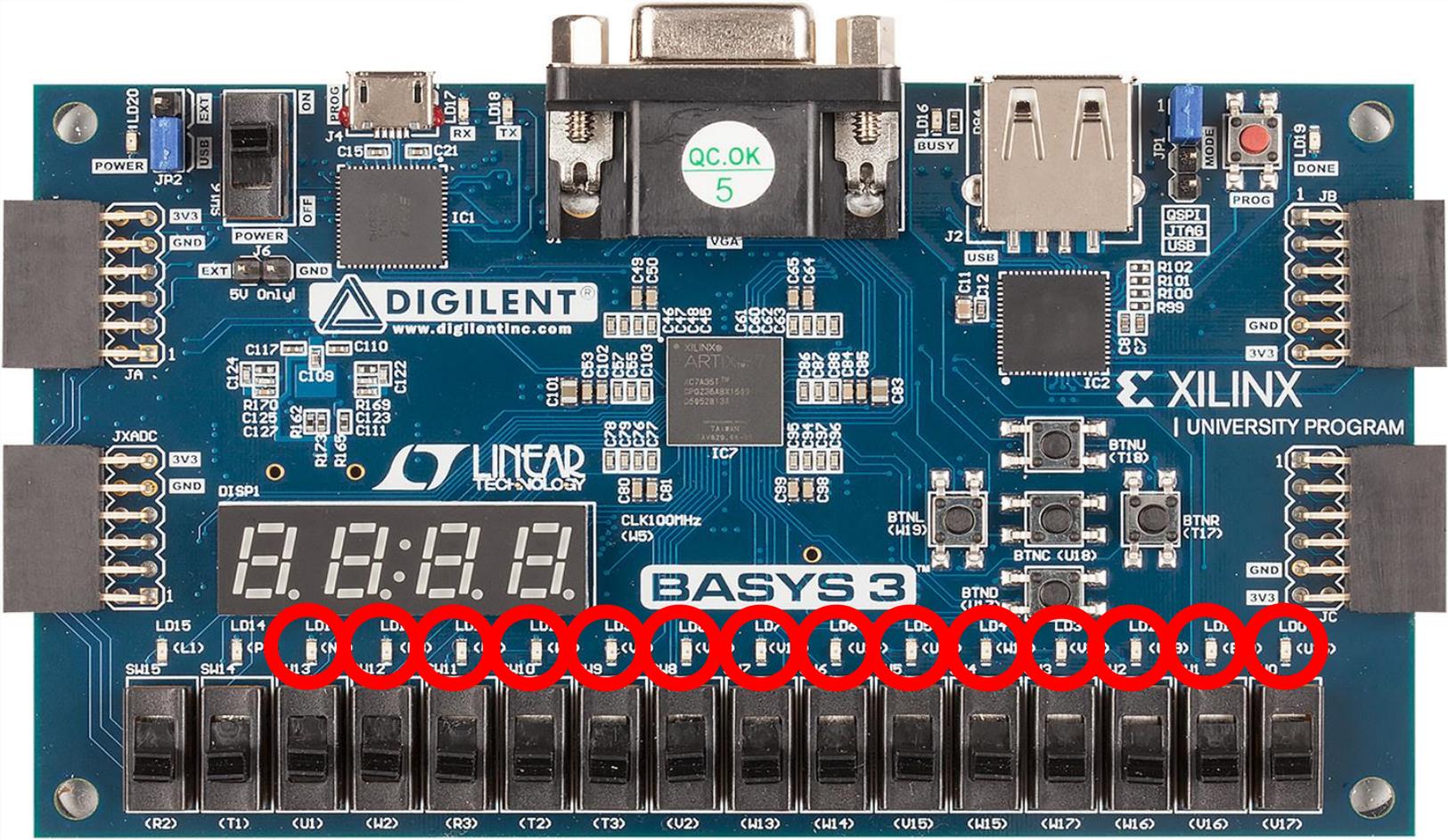
# UP AND DOWN BUTTONS



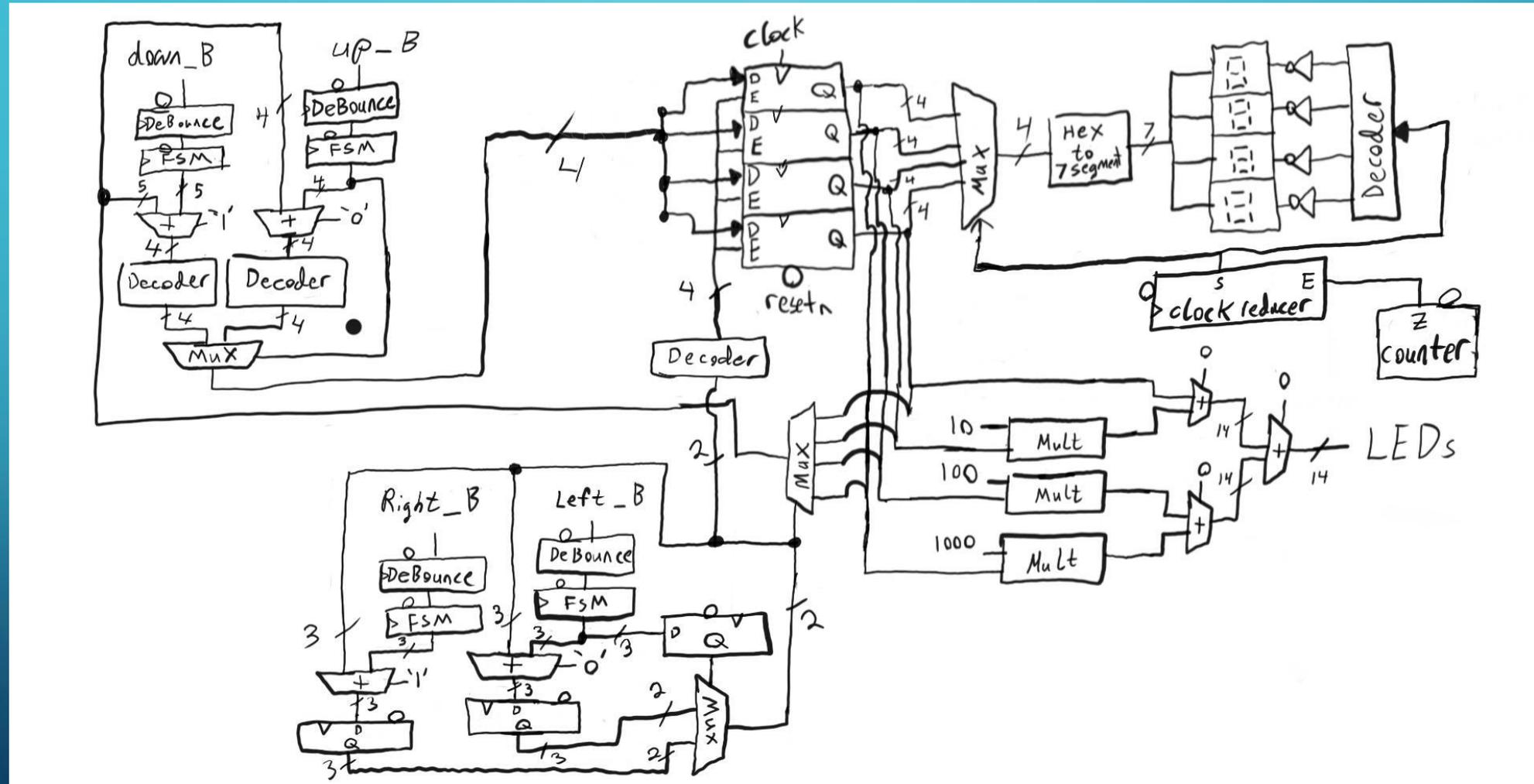
# RESET BUTTON



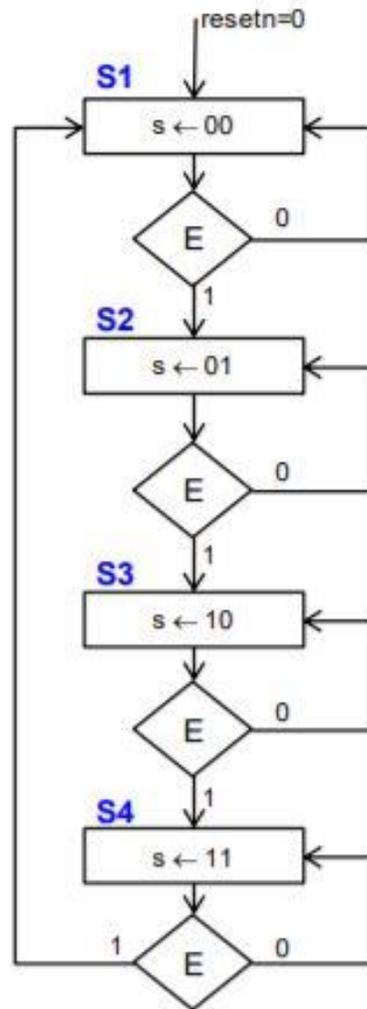
# RESULT IN BINARY



# BLOCK DIAGRAM



# CLOCK REDUCER FSM



# BUTTON REJECT FSM

