# CSCE A342
# Worksheet #2
# Due 3/20/18

## Create an ALU as specified below on your BASYS3.

| BUTTON | FUNCTION |
|---|---|
| TOP BUTTON | a + b |
| LEFT BUTTON | a XOR b |
| CENTER BUTTON | 1 if a < b, 0 otherwise |
| RIGHT BUTTON | Arithmetic right shift by 2 |
| BOTTOM BUTTON | a – b |
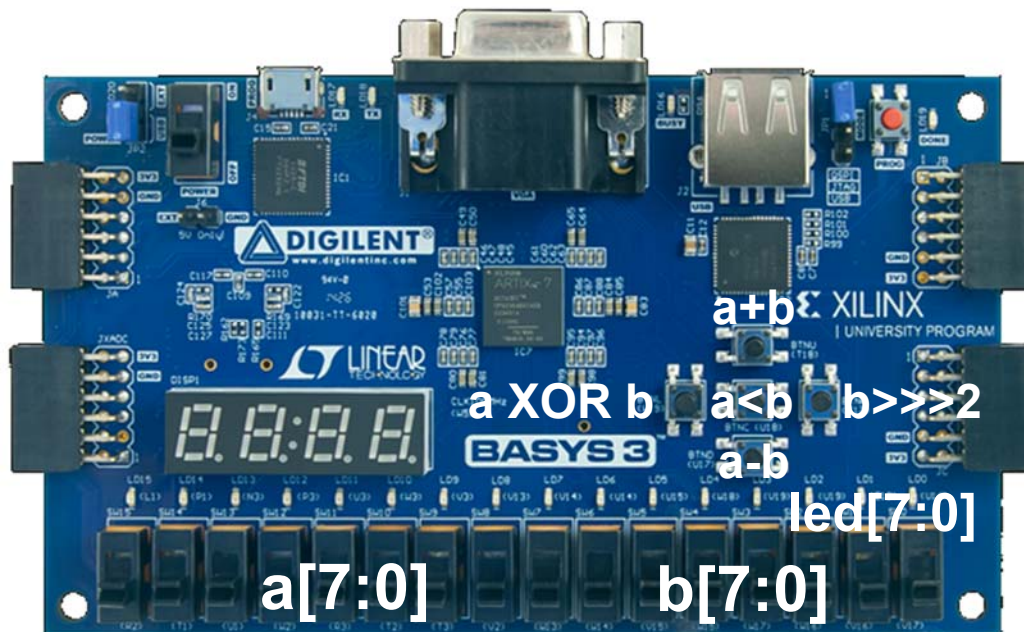


A project file can be found on blackboard to help you get started. Bring your BASYS3 to class on the due date to demonstrate its functionality. Additionally, augment the file of test vectors to test your design. As before, the testbench file has been provided, you only need to create the test vectors. You need only to provide 10-20 test vectors, but please make sure each function of the ALU is tested at least once.

Turn in (via blackboard) your project files (including workSheet2ALU.sv and ALUtestvector.tv) together with a screenshot of your simulation. Again, functionality will be tested in class on the due date.