

262 - LAB 5
Adding an LCD Interface to Servo Lab

NAME:

POSSIBLE POINTS: 10

STUDENT ID:

COURSE DATE & TIME:

OBJECTIVE:

You will take the previous Servo Lab and add an LCD display to it. The LCD will display the angle that the servo is currently set at. From the previous Lab the servo was able to increment and decrement through 20 different angles on the range from -90 to +90. This means that each button press made a change of 9 degrees. These angles are -90, -81, -72, ..., -9, 0, +9, +18, ... +81, +90.

Example:

At Reset

Default Angle at Reset: Center 0 degrees

LCD Should Display: "Angle: +0"

2 Decrement Button Presses

LCD Should Display: "Angle: -18"

5 Increment Button Presses

LCD Should Display: "Angle: +27"

etc... from -90 all the way to +90

LAB WRITE-UP:

- The lab write-up will include this page as the cover sheet and all materials in one document submitted on beachboard dropbox.
- Any questions answered
- A schematic properly done in a professional grade schematic entry tool like CircuitMaker.
- The source code
- A picture of your physical prototype.

DEMO:

When your project is ready, you will demonstrate the functionality to the instructor.