

Lab 4. 7- Segment Display.

7 Segment Display.

A **Digital Decoder** IC, is a device which converts one digital format into another and one of the most commonly used devices for doing this is called the Binary Coded Decimal (BCD) to 7-Segment Display Decoder.

7-segment **LED** (Light Emitting Diode) or **LCD** (Liquid Crystal Display) type displays, provide a very convenient way of displaying information or digital data in the form of numbers, letters or even alpha-numerical characters.

Hardware Required

- Arduino or Genuino Board
- Display Decoder
- pin headers to solder to the LCD display pins
- Nine (9) -220-ohm resistor
- hook-up wires
- breadboard

Open the link below:

[7 Segment Display.pdf](https://slcc.instructure.com/courses/1004604/files/165676965/download?wrap=1) (<https://slcc.instructure.com/courses/1004604/files/165676965/download?wrap=1>)  (https://slcc.instructure.com/courses/1004604/files/165676965/download?download_frd=1)



[7 Segment Display Schematic.pdf](https://slcc.instructure.com/courses/1004604/files/165676706/download?wrap=1)

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Program in MIPS using Atmel Studio's IDE:

[DisplayDecoder.asm](https://slcc.instructure.com/courses/1004604/files/165676693/download?wrap=1) (<https://slcc.instructure.com/courses/1004604/files/165676693/download?wrap=1>)  (https://slcc.instructure.com/courses/1004604/files/165676693/download?download_frd=1)

Program in C using Arduino's IDE:

[7-segment LED display to an Arduino.pdf](https://slcc.instructure.com/courses/1004604/files/165676935/download?wrap=1)

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[common_anode_7_segment_led_display.ino](https://slcc.instructure.com/courses/1004604/files/165676714/download?wrap=1)

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[Connecting a 7-segment LED display to an Arduino, part 1 - Anything Arduino ep7](#) ➞

(<https://youtu.be/yWwvUUZ4-Xs>)



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