Seven Segment Display through AVR-Assembly

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Contents

***Abstract*—The objective of this manual is to show how to control a seven segment display through the AVR-Assembly.**

1 Components

Component	Value	Quantity
Breadboard		1
Resistor	≥ 220Ω	1
Arduino	Uno	1
Seven Segment Display	Common Anode	1
Jumper Wires		20

TABLE 0

2 Controlling the Display

1. Complete Table 1 for all the digital pins using Fig. 1.

Port Pin	Digital Pin
PD2	2
PB5	13

TABLE 1

2. Make connections according to Table 2.
3. Execute the following code. The number 2 should be displayed.

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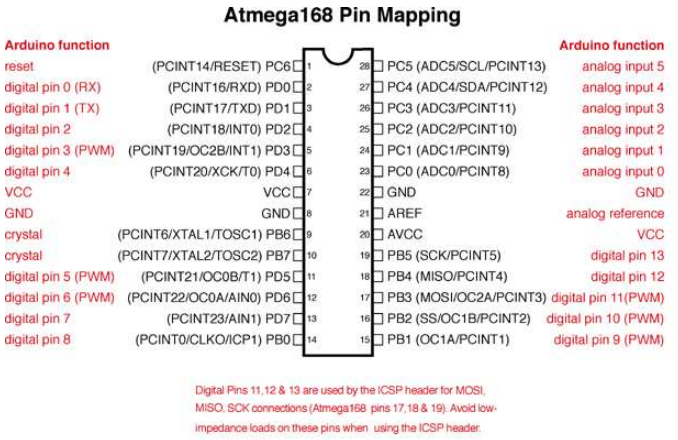

Fig. 1

Arduino	2	3	4	5	6	7	8
	PD2	PD3	PD4	PD5	PD6	PD7	PB0
Display	a	b	c	d	e	f	g
2	0	0	1	0	0	1	0

TABLE 2

```
wget https://raw.githubusercontent.com/gadepall
    /arduino/master/assembly/sevenseg/codes/
    sevenseg.asm
```

4. Now generate the numbers 0-9 by modifying the above program.