

# Display 0 to 9 on Seven Segment Led

**Aim:** - The aim of this project is to display 0 to 9 on Seven Segment Led

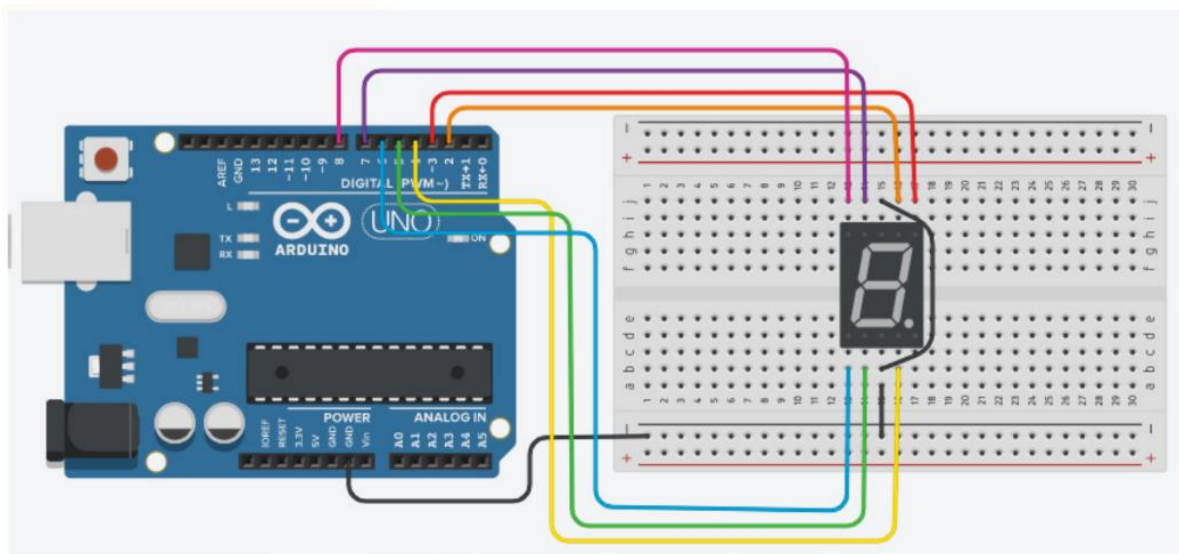


## Components Required

Sl. No	Items	Quantity
1	Jumper wire M-M	10
2	Arduino uno	1
3	Arduino cable	1
4	Seven Segment Single Digit	1
6	Battery (9V)	1
7	Battery cap (DC jack)	1



## Circuit Diagram



## Procedure

- Take one breadboard and arduino board
- Mount seven segment display on breadboard tightly as shown in diagram only.
- Take one male to male wire and connect between the 3rd pin (from top and bottom side) of the seven segment display.

- Take one wire, connect one wire from the 3rd pin of the seven segment display to -ve rail of the breadboard.
- Connect one wire from the -ve rail of the breadboard to the GND pin of the arduino board.
- First complete the topside connections as per given details.

Seven segment display	Arduino
1st pin from top right side	pin no. 3
2nd pin	pin no. 2
4th pin	pin no. 7
5th pin	pin no. 8

- Now do the bottom side connections as per given details

Seven segment display	Arduino
2nd pin from bottom right side	pin no. 4
4th pin	pin no. 5
5th pin	pin no. 6



## Procedure to upload the code

- Once connections are done then connect an arduino board to your laptop/computer system using an arduino cable.
- Open arduino IDE.
- Open program file in arduino IDE. Go to File->Open>Download>select seven\_ segment\_display.
- Click on the upload option.

## Program

```
char num[10][7]={ {1,1,1,1,1,1,0}, //0 {0,1,1,0,0,0,0}, //1
{1,1,0,1,1,0,1}, //2
{1,1,1,1,0,0,1}, //3
{0,1,1,0,0,1,1}, //4
{1,0,1,1,0,1,1}, //5
{1,0,1,1,1,1,1}, //6
{1,1,1,0,0,0,0}, //7
{1,1,1,1,1,1,1}, //8
{1,1,1,1,0,1,1} }; //9
void setup()
{
pinMode(2,OUTPUT);
pinMode(3,OUTPUT);
pinMode(4,OUTPUT);
pinMode(5,OUTPUT);
pinMode(6,OUTPUT);
pinMode(7,OUTPUT);
pinMode(8,OUTPUT);
}
void loop()
{
for(int i=0;i<10;i++)
{
delay(1000);
send_num(i);
}
```



```

}
void send_num(int row)
{
int pin =2;
for(int col=0;col<7;col++)
{
digitalWrite(pin,num[row][col]);

pin++;
}
}

```

## Output

You can see the numbers on the display from 0 to 9.

### 9V Battery connection:

1. You are powering the arduino through your laptop. You can also power the arduino through a 9v battery.
2. Disconnect the arduino cable and connect the 9v battery to the arduino board using the power jack connector. Now you can see the circuit is working.

Note: Do not connect the battery all the time to the arduino board. It will drain the battery.

## Troubleshoot

Issue	Solution
My sevensegment display is not powered up	Thoroughly check the connection of every pin of the seven segment display.
Display is powered but not displaying all numbers	Recheck the jumper wires, replace loose wires if any.

