

# Seven Segment Display

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

Spoken Tutorial Team

IIT Bombay

2 November 2017



# Learning Objectives

**We will learn how to**



# Learning Objectives

**We will learn how to**

- **Connect a Seven Segment Display to Arduino board**



# Learning Objectives

We will learn how to

- **Connect a Seven Segment Display to Arduino board**
- **Write a program to display digits from 0 to 4 on Seven Segment Display**



# Pre-requisites



# Pre-requisites

To follow this tutorial, you should have basic knowledge of:

- **Electronics**



# Pre-requisites

To follow this tutorial, you should have basic knowledge of:

- Electronics
- C or C++ programming language



# System Requirements





# System Requirements

- **Arduino UNO Board**



# System Requirements

- **Arduino UNO Board**
- **Ubuntu Linux operating system 14.04**



# System Requirements

- **Arduino UNO Board**
- **Ubuntu Linux operating system 14.04**
- **Arduino IDE**



# External Devices



# External Devices

- **Seven Segment Display**



# External Devices

- **Seven Segment Display**
- **220 ohm Resistor**



# External Devices

- **Seven Segment Display**
- **220 ohm Resistor**
- **Breadboard**



# External Devices

- **Seven Segment Display**
- **220 ohm Resistor**
- **Breadboard**
- **Jumper Wires**

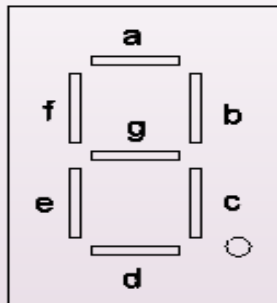
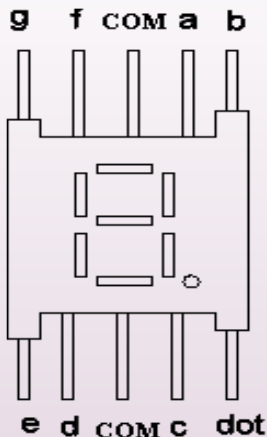




# Seven Segment Display



# Seven Segment Display



Seven-Segment Display



# Seven Segment Display



# Seven Segment Display

- The Seven Segment Display has seven LEDs arranged in the shape of digit eight



# Seven Segment Display

- The Seven Segment Display has seven LEDs arranged in the shape of digit eight
- There are two types of displays:



# Seven Segment Display

- The Seven Segment Display has seven LEDs arranged in the shape of digit eight
- There are two types of displays:
  - Common Anode



# Seven Segment Display

- The Seven Segment Display has seven LEDs arranged in the shape of digit eight
- There are two types of displays:
  - Common Anode
  - Common Cathode Seven Segment Display



# Summary

**In this tutorial we learnt to:**

- **Connect a Seven Segment Display to Arduino board**
- **Write a program to display digits from 0 to 4 on Seven Segment Display**





# Assignment

- **Change the same program to display the digits 5,6,7,8 and 9**
- **Compile and upload the program**
- **Observe the digits displayed in the Seven Segment Display**



# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Forum for specific questions

- Do you have questions in **THIS Spoken Tutorial?**
- Please visit <http://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- Someone from our team will answer them



# Acknowledgements

- Spoken Tutorial Project is a part of the Talk to a Teacher project
- It is supported by the National Mission on Education through ICT, MHRD, Government of India
- More information on this Mission is available at

<http://spoken-tutorial.org/NMEICT-Intro>

