

# Scintilla Session 1 Electronic Basics

21-08-2019

## Abstract

The first session of scintilla was held on 21st of September 2019. The session was held at Electronics workshop. Staff-in-charge Vinod G as well as Instructor Sabarinathan P was also present. The full team of Scintilla and other Elacsta members endeavoured to make the event possible.

## 1 Objectives of the Session

The session was conducted with the main objective to introduce the participants to basic electronic components and circuits. They were also familiarized on how to understand the component parameters and data sheets.

## 2 Participation

Details about attendees here.

### List of Participants

No. of First year attendees: 35  
No. of Second year attendees: 10  
No. of Third year attendees: 4  
No. of Fourth year attendees: 0

Total No. of attendees: 49

## 3 Technical Details

### 3.1 Datasheet and Electronic components

The basic components like LEDs and capacitors were put forward in the session and the datasheets related to them were also gone through.

There is a huge variety of different LEDs that are available, each type with its own datasheet and specifications. Everything from the colour to the package, light output to the voltage drop and many more specification parameters. When choosing LEDs it is necessary to understand the datasheet specifications so that the optimum LED part can be chosen for the particular application.

A data-sheet, or spec sheet is a document that summarizes the performance and other characteristics of a product, machine, component

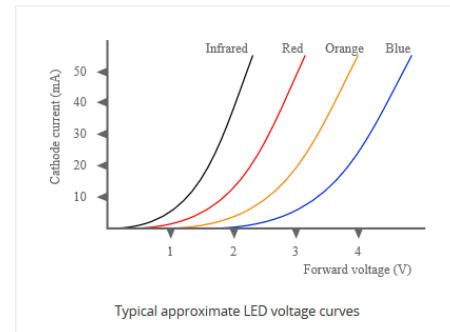


Figure 1: Typical approximate LED voltage curves



Figure 2: Datasheet

### 3.2 Schematic

Schematic was done on open source cloud platform easyEDA. No PCB file was created. Instead attendees were encouraged to realize the circuit on general purpose PCBs. The files are readily available at:

<https://easyeda.com/SCINTILLA01/capacitive-dropper-for-mains-powered-led>

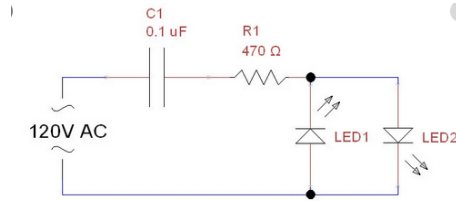


Figure 3: Schematic

## 4 Images

These are the pictures captured during the session.



Figure 4: Different Stages of circuit making



Figure 5: Testing the circuit



Figure 6: poster

## 5 Conclusions and Suggestions

The first session was conducted as per the schedule and all the participants and coordinators showed impeccable participation. The limitations pointed out at the end of the session were about the time management and the in-audible sound of the instructor. These drawbacks from the team were suggested as an improvement for future events.