CHAPTER 3

METHODOLOGY

3.1 Introduction

In this chapter, it will be to describe the whole project development process and its requirement along the way. The chapter will focus on the methods of how the project being design and fabricated from the electrical view up until its programing method. The detail process of the project will be shown on the flow chart below.

3.2 Project Flow Chart

As shown in the Figure 3.1, the overall process of the project sequence is determined by the priority plus the process that needed to be accomplish first before moving on to another part of the project. It also being use the keep track the work needed to finish the project as well the time needed to be allocated in specific process such as the development of the android application that require more time to be finish.
Create an android base application as a GUI

Coding for the LED dot matrix for Maxim driver and Arduino integration

Does the Bluetooth being able to be control by the application?

Does the design meet the required specification?

Design approval to proceed

Redesign and improvement

Start

Project circuit design and simulation

Design approval to proceed

Project finalize enhancement and touch up

End

Figure 3.1: Project flow chart
### 3.3 Electrical Design

In this section, a detailed description of the component used in the project are discussed and described. This is to show it's significant to the project and on why the component is chosen to be used.

![Diagram of the driver circuit](image)

**Figure 3.2** Basic design of the driver circuit connected through daisy chain.