



PORTABLE PUMP TYRE INFLATOR

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ABSTRACT

This is the summary of how our project work. This project is used a microcontroller PIC16F877A. The project is about how to interface the air compressor to the microcontroller. The air compressor need a 12 V and 10 amps supply to make sure air compressor running smoothly. From that, a car battery need to connect to air compressor . after the air compressor need to interface to the microcontroller to control by the switch. To do that, the transistor TIP142 is used to interface between air compressor and microcontroller. The air compressor is controll by swith button. The process begin when the switch is turn on. The LCD display shows a pumping sign. Therefore, the air compressor will start pumping the tyre until it enough pressure. The LCD display will show not pumping sign if is switch turn off. The air compressor will not pumping if switch is turn off. The microcontroller also need a 5V. From that a voltage regulator LM7051 is used to step down the voltage from a battery and connect to microcontroller.

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CHAPTER 1

INTRODUCTION

In this chapter will explain about the summary of the project, objective, scope of study and the project contribution that can be applied in improving user's daily activities.

1.1 Introduction

Portable air compressor is design to help the people who has the problem with their tyre deflating. This product is useful especially in emergency if the user are hard to find facilities to pump their car tyre.

Furthermore it can used to avoid time wasting to user to queue on the petrol station with other user to pump their tyre. With this portable car tyre inflator user can pump their tyre anywhere nd anytime they want without need to share with other user.

Portable car tyre inflator also created to reduce the amount of the car accident on the road. The low or high pressure of the tyre can make a user probably facing car accident. This device can check the amount of presure tyre need to make sure the tyre is enough presure. This device also is created to easy the user to use and to carry and keep on their car. It also created can used directly from car ciggarrete supplies. User just need to connect the air compressor to the car ciggarrete and can straightly used the air compressor.