

**MINI AUTOMATIC GUIDED VEHICLE
USING
PERIPHERAL INTERFACE CONTROLLER**

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ABSTRACT

Automatic Guided Vehicles (AGVs) system has been in existence since 1953. It begins with the vehicles to follow the imbedding a wire in the factory floor. Today the technology continues to evolve. The wire in the floor is still available for the proper application. However, many systems today are being designed without the floor wire [5]. This project is concern about the development a prototype of AGVs called Mini Automatic Guided Vehicle (Mini AGV) with a sophisticated technique in tracking the path on the floor. The basic theory of this Mini AGV is base on autonomous robot called line following robot. Line following robot is an autonomous robot with capability to follow a line marked along the floor. Same concept with the line following robot, this automation system is designed to follow the track along the floor from one point to another point. This project is involved software development for the system to give a view on how the real operation of AGVs in the industry. All these system will be controlled by the Peripheral Interface Controller (PIC) microcontroller.

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CHAPTER 1

INTRODUCTION

1.1 Background

Automatic Guided Vehicles (AGVs) is an automation vehicle used in numerous industrial application and process for moving the products around automatically. Industrial AGVs have been designed to follow the wires embedded in the floor and transmitting a signal, which the vehicle is programmed to follow. Different wires transmit different frequencies, so AGVs can be programmed to branch off from the main route and follow wires to selected destinations. This project is concern about development of AGV prototype with new technique for guiding the vehicle. The basic theory of this Mini AGV is base on autonomous robot called line following robot. Line following robot is an autonomous robot with capability to follow a line marked along the floor. Same concept with the line following robot, this automation system is designed to follow the track along the floor from one point to another point.

1.2 Objectives of the Project

The aim of this project is to design and development an automation systems environment with utmost flexibility, highest “intelligence” and almost unlimited individuality.