

Project Title:

Classifyo

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Outlines:

- Introduction
- How does it work
- Constraints
- Future work

Introduction

Classifyo : It is an intelligent ordering machine used in large supermarket to arrange products on shelves in a smart and easy way

Introduction

Problems :

- It became difficult for humans to manually arrange shelves due to the increase in the size of the supermarket
- Remembering the places of the shelves for each product is difficult for the human

How does it work ?

- We put the product on the belt
- The belt moves and the barcode reader reads the barcode on the product
- The belt pushes the product onto the elevator
- Based on the barcode, the elevator moves to the shelf assigned for that product
- The arm pushes the product into the shelf
- The elevator returns back to the starting point

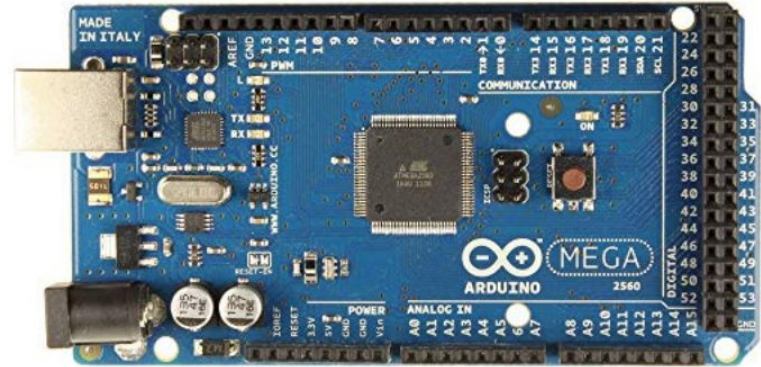
Idea:

Classifyo



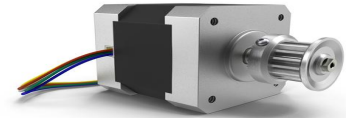
Hardware: p1

Arduino Mega



Hardware: p2

- Servo Motor
- Stepper Motor
- DC Motor
- Barcode Reader



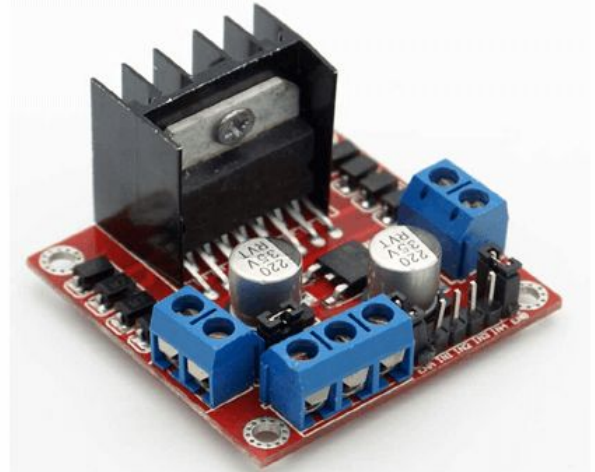
Hardware: p3

- Power Supply 12V 10A



Hardware: p4

- DC Motor Driver
- Stepper Motor Driver
- Belt



Hardware: p5

- Aluminium rail
- Wooden Elevator



Demo (Video)

Future Work

- Sensor to check if the shelf is empty or full
- Add a sensor on the shelf to calculate the number of products on the shelf
- Develop the project to be suitable for warehouses
- Add a camera to analyze the image if there is no barcode on the product

Thank you