Group – 45 (new project idea)
Warehouse manager robot

Ware-Bot

About Ware-Bot,

Ware-Bot is a robot that helps to organize warehouse stocks. It can pickup packages from the shelves and drop at destination according to the user's commands given by an application. This robot can get weight measurements and read QR codes of stocks while carrying. That information will be sent to a database where the user can manage their stocks.

The Ware-Bot travels through pre-given paths according to the commands avoiding obstacles. It will pickup packages using its grab arm by reading the QR code attached to the package. It has an adjustable arm which helps to reach heights. The QR includes the location coordinates of the package.

The user can select the wanted package using the application. After selecting a package, the robot will automatically get the location coordinates of the package. It will travel through the given line after identifying the correct path of the package. To confirm the location the robot will read the QR code attached to the package. after the confirmation the robot will pick up the package and deliver it to the user. In addition to that, this robot is capable of picking up and delivering packages into user defined locations or shelves. By this, the user can rearrange packages when needed. This Robot is also capable of docking its self to recharge the battery when on low juice.

To control the robot, we have decided to provide a user-friendly application. With this application the user is capable of getting package location data and weight data. User can also track the robot's location. User can rearrange, pick up or drop off packages accordingly by this application.

Required Materials,

- Arduino Uno
- Loadcell weight sensor
- IR sensors
- Ultrasonic sensor
- Servo
- Motors and Wheels
- Batteries