SMART FORKLIFT

ElectroCap program, Instituto Superior Técnico
Number 9

PROBLEM

Stock management in warehouses is made manually and is subject to several mistakes. The problem we are trying to solve is the human error in the process of registering the items in stock into databases, both in quantity and in location. Better organization in real time would reduce errors and waste. Some systems solve some of these problems but are singular to each problem and considerably expensive.

SOLUTION

Our solution aims to develop a system that can calculate the number of items through their mass (weight), send all acquire data into companies' databases, in their standard format and will be controlled through a wireless controller.

TARGET AUDICENCE

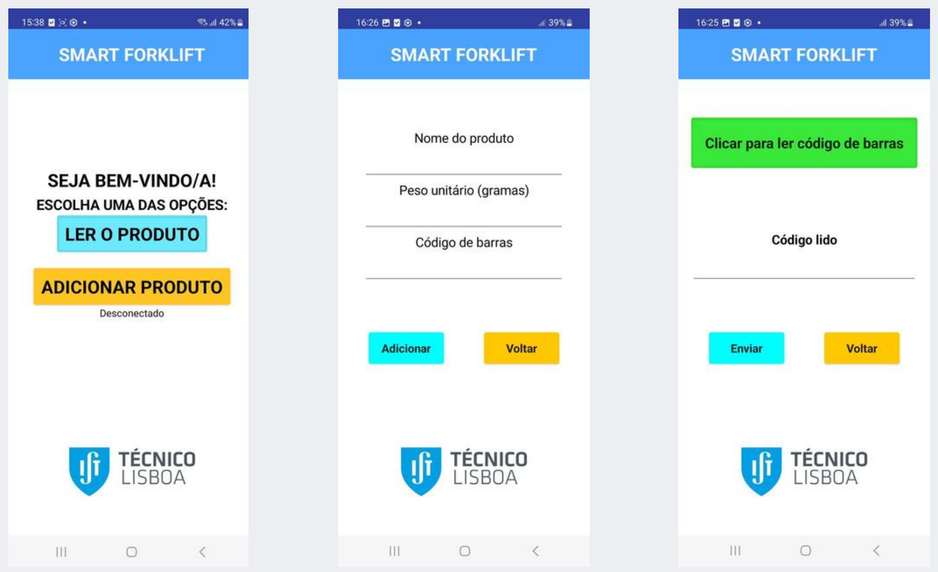
The retail & e-commerce segment has experienced a significant transformation in recent years, driven by changing consumer preferences and the rise of online shopping. Forklifts play a vital role in streamlining warehouse operations and ensuring seamless movement of goods from order receipt to storage and order fulfillment. Their compact design and precise control enable agile maneuvering in tight spaces, optimizing space utilization and expediting inventory management.

TECHNICAL IMPLEMENTATION

To develop the project, we used the Tinkercad program to make the parts of the 3D model, cirkit programme to make the electrical circuit diagram and Phpmyadmin and MITappInventor to make the data base.

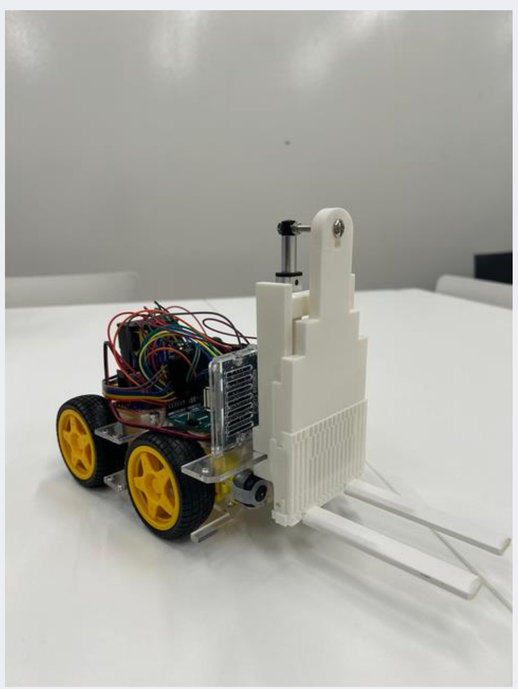
APP

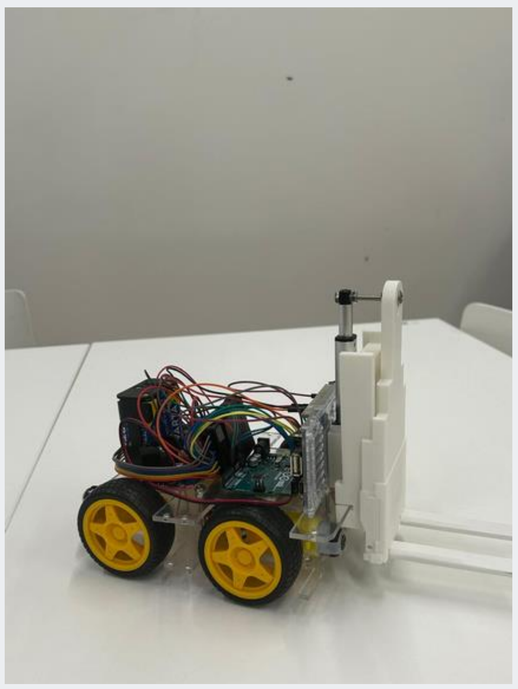
The image below represents the application developed, which connects to our Database.



If we want to add a new product to the database, with the aid of our program, we scan the QR Code and enter the weight and name of the product.

OUR PROTOTYPE





WEBSITE QR CODE

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