# Self-service checkout and payment for restaurants





# Introduction



# Company Overview

Founded in 2019, Design Tree Ltd is a mechanical engineering and manufacturing company that specializes in creating custom solutions for clients.

Company have a strong track record of successfully completing projects in a variety of industries, and have particular expertise in computer vision and the development of innovative products.

Our team of experienced engineers and technicians are dedicated to delivering top-quality products and services to our clients.

Looking to the future, we are always seeking out new opportunities for innovation and are excited to see what the next chapter holds for our company. We are confident that our expertise and commitment to excellence will continue to drive our success for years to come.



# Why do restaurants need a smart solution?

Computer vision checkout systems can help restaurants to improve efficiency, reduce wait times, and offer more convenient payment options to customers



Restaurants that are shortstaffed may struggle to keep up with customer demand at peak times. Self-checkout systems can help to alleviate this burden by allowing customers to check out and pay for their own items.

# Long lines and wait times

Traditional checkout systems can be time-consuming, particularly during busy periods. Self-checkout systems can help to reduce wait times by allowing customers to scan and pay for their own items.

# Order accuracy

Traditional checkout systems can be prone to errors, such as incorrect orders or incorrect prices. Computer vision systems can help to improve order accuracy by scanning and identifying items as they are added to the order.



# Solution

Using a computer vision system for self-checkout in a restaurant can offer several benefits, including reducing the need for personal resources and saving time. The system can analyze images or video of a customer's plate or salver to identify the types of food present and their quantities.



# Accuracy and speed

machine The can process transactions quickly and accurately, potentially allowing a restaurant to serve more customers in a given period of time. This can potentially reduce the number of cashiers needed to handle the volume of customers.

# Time saving

The self checkout machine, process transactions more quickly and accurately, potentially reducing the time customers spend waiting in line or interacting with the machine.

#### **Reduced labor costs**

Machines can handle many of the tasks that would normally be performed by a cashier, such as processing transactions and handling customer inquiries. By using self checkout machines, a restaurant can potentially reduce the number of cashiers needed, saving on labor costs.

### Customization

Customers who order a significant number of self checkout machines (e.g., 15 or more) may have the opportunity to customize the aesthetic design of the machines to suit their individual preferences.

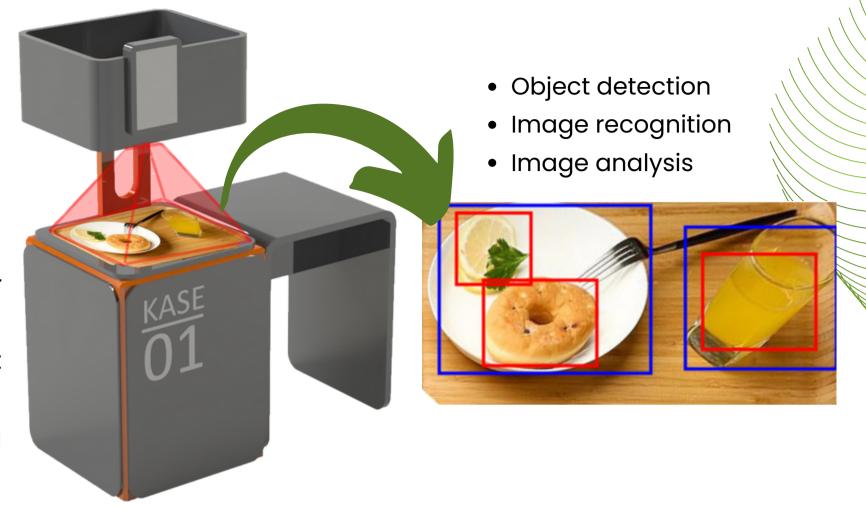


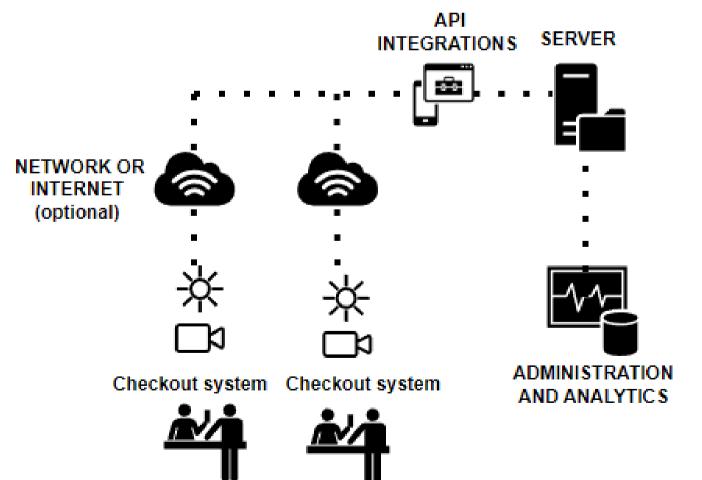
# How does it works

- A checkout machine equipped with a computer vision camera or scanner allows customers to scan and pay.
- The system displays a list of the customer's items and the total cost of the purchase.
- Customers can choose to pay using a variety of methods, including credit or debit cards, mobile payments, or cash (if supported).
- The checkout machine issues a receipt to the customer;

# Requirements

- System need to be connected to the same point of sale (POS) system that the existing checkout system uses. It should be integrating the self checkout system with the POS system's database, payment processing system, and any other relevant systems or processes.
- The self checkout system may need to be configured to use the same pricing and discount rules as the existing checkout system, and to generate receipts and reports in the same format.
- System is compatible with a range of popular terminal protocols, such as R-Keeper.



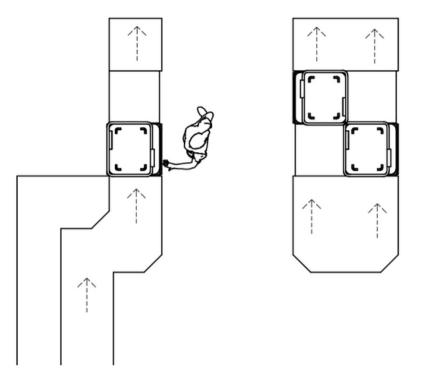




# Implementation

- **1. Research** research and asses the needs; studying the existing checkout process, analyzing customer and staff data, researching potential solutions
- **2. Contract** negotiating the terms of the contract, including the price; delivery schedule, and any warranties or guarantees;
- **3. Design** work with the design and customize the self-checkout system to meet the specific needs and requirements;
- **4. Manufacturing** assembling the hardware components; programming the software; testing the system;
- **5. Installation** setting up the hardware and software components; training staff on how to use the system; integrating the system with any existing restaurant infrastructure;

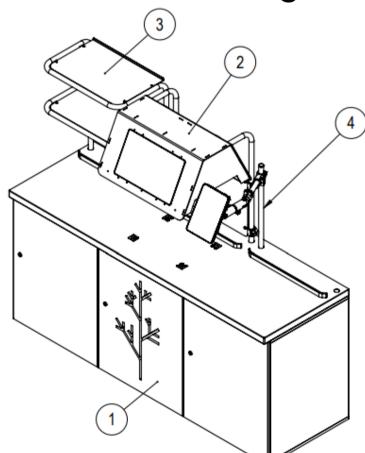
#### Research



# **Aesthetic design**



# **Technical design**



# Manufacturing





# **Contact Us**

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