

ABSTRACT

The culinary industry is one of the industries that can keep up with the times and continue to develop. Currently, online food purchases are popular among the public, yet some customers still choose to dine in. Each restaurant has their own order, payment, and delivery system. However, generally, the order, payment, and delivery process is still carried out manually, with servers and customers constantly moving around within the restaurant area. The servers take note of the orders, pass on the information to the kitchen, and then personally deliver the orders by approaching the customers directly. For the payment process, sometimes customers also still have to go to the cashier. This is considered less effective, especially during busy restaurant times, which can lead to crowds.

There are several restaurants that are already trying to solve this issue, for example McDonald's, that have implemented ordering and payment through monitor screens, and some sushi restaurants that use conveyor to deliver orders. However, most of restaurants still continue to employ manual systems for payment, and delivery. Therefore, a system has been created to manage ordering, payment, and food delivery without requiring direct human interaction. This system consists of food delivery robots and a website that can be used for the order and payment process, as well as controlling the food delivery robots.

From the tests that were performed, the food delivery robot measures 50 cm in length, 50 cm in width, and 88.5 cm in height, with a weight of 3.35 kg. This robot is also capable of carrying a maximum load of 3 kg with an average speed of 0.24 - 0.35 m/s. Order and payment confirmations made by the administrator on the website can also be completed in less than 5 minutes. Based on the test results, the whole system can work well in accordance with the desired specifications.

Keywords: Order, Payment, Delivery, Food, Robot, Website