

ABSTRACT

Every human being needs clothing, food, or shelter that usually all of these needs can be found in traditional markets and supermarkets.

Usually supermarkets use baskets or strollers that have been provided at the supermarket. With many users using trolleys and without self-awareness, consumers often leave their trolleys in any place, even in the middle of the corridor, making it difficult for other consumers to pass through the corridor and find it difficult to take the desired needs. This is considered less effective in supporting consumer productivity in finding and catching their needs.

Of these problems led to the idea of making a microcontroller-based tool that can enable trolleys to follow users who hold Android. Using the Arduino programming language and Ultrasonic HC-SR04 as a distance controller so that the trolley does not collide with objects around for display in android using App Inventor.

Supported by the availability of Bluetooth networks that are used in these devices. This tool will make it easier for consumers to shop without pushing trolleys, consumers only need to bring a personal smartphone by downloading a special application first then connecting to the existing trolley to get an ID, so that when shopping the trolley will not be confused because it already has its own ID connected between Androids and trolley.

Keywords: Supermarket, Trolley, Automatic, Arduino, Ultrasonic HC-SR04