

## ABSTRACT

*The rapid progress towards increasing the vehicle population has not been followed with the availability of parking lots, especially in big cities. That matter resulting in motorists looking for a parking space. This problem resulting in congestion due to a buildup of vehicles when you want to enter the parking area. The purpose of this research is to make it more effective parking system and can assist drivers when searching for parking blocks quickly by simply looking at the display screen and led indicator on the side over every parking block. The research method begins with identifying to develop the system and continue with data collection until a smart parking system is produced. Preparation of this smart parking system consists of components to detect using an ultrasonic sensor, components for system control using Arduino r3 and location management component, namely 3 (three) led indicators. Test results vehicle detection shows success by 90.7% of the average 5 attempts. For the parking management system, the driver can be directed to an empty parking block by looking at the area plan screen view park when the driver is picking up the ticket and sees the led light red, yellow, and green indicators on the top of each block parking.*

*Keywords: Parking block, Led indicator, ultrasonic sensor.*