

ABSTRACT

Stadium seats are facilities used to watch football. In general, stadium seats are in an open position. Radio Frequency Identification (RFID) is a security system that uses radio waves, this technology uses three types of devices namely tag, reader and antenna. RFID combines advantages not available in other identification technologies. RFID can be provided in a device that can only be read (read only) and written (read/write), does not require direct contact of the path of light to operate, can function in a variety of environmental conditions, and provides a high level of data integrity, and difficult to forge, so RFID can provide a high level of security.

The RFID system is used to open the available seat in the stadium which is equipped with a microcontroller. This method aims to be able to see an empty seat and buy the desired seat so that it can sit according to the seat that has been purchased. So that the safety and comfort of the audience becomes more guaranteed. This system works by reading the audience ticket replacement card which is a substitute for a ticket and is placed on an automatic seat, when the card is fixed the seat will open automatically using Arduino as a microcontroller, servo as a propulsion. This minimizes the seat number error. And can see empty seats.

In this test we get the results of all the features available on the device that have been designed to run well and as expected. Test the functional test system on the four seats in the best one by one ten times with each RFID that matches the seat and RFID that does not fit the chair. In this test, it is tested to learn the function read by the RFID reader in accordance with or not the output display.

Keywords: RFID, Radio Frequency, Microcontroller