ABSTRACT

Train is one of public vehicle which is used by many society in Indonesia. Wesel is the sticks of construction of the train which has branch for moving of train strip. Nowdays, wesel of train have done byb automatic with using electrical motor which is campaigned from other side. In contrast wasel doesn't walk perfect. So the employee should come to the location, where there is wesel a few weselof train can operate by manual or hanger wesel as service wesel in there.

Then incrase by using wire, by design automatic wesel with use ultrasonic proximity sensor technology. Sensor will dictation the train position from distance at wesel. When the position of train have arrive at distance which is deuded, so it will move for cross by the train. GPS is using for knowing the position of train ang latitude longitude of wesel location data which is gotten from GPS will send by real-time with using firebase database.

The proposed final project produces automatic money orders with GPS on trains. Where, GPS is used to determine the position of the train in the latitude longitude. The automatic money order system uses an ultrasonic proximity sensor or HC-SR04 has an average delay of 0.83 seconds for the process of sending data to a monitoring system. Then for the process of sending data from firebase to the monitoring system, the average delay is 0.24 seconds. To delay sending data from firebase to the monitoring system it has an average of 0.4 seconds.

Key Words : GPS, train, ultrasonic sensor, *wesel*