

ABSTRACT

Traffic accidents often occur in everyday life. Many factors cause traffic accidents to occur. This traffic accident occurred due to traffic congestion when returning home from work. Apart from that, it can also occur because the driver is less focused or too tired from driving. However, traffic accidents often occur due to poor road infrastructure..

Contributors to the high number of traffic accidents are two-wheeled drivers. So an air vest is needed that can reduce the effects of impact if an accident occurs. In this research, an air vest for two-wheeled riders will be designed. Which is equipped with an IoT-based tilt sensor.

The way this air vest works is similar to the safety of airbags on four-wheeled vehicles. How the tilt sensor works: when the sensor detects a tilt that has been entered into the Arduino, the vest will expand. This vest uses an Arduino Uno ATmega 328 board, using the MPU-6050 Gyroscope Sensor. The results of this test are direct tests that drivers can use to improve their daily driving safety.

The final results of this research resulted in data obtained from the prototype experiment which yielded 60% results and the success of the inflating time was approximately 7 - 10 seconds. However, when it was used through the trial method, very satisfying results were immediately obtained, namely 100% success and a successful inflating time of approximately 7 – 10 seconds.

Kata Kunci: (Arduino Uno, Sensor Kemiringan, Rompi Pintar , ATmega 328 , IoT)