ABSTRACT

Now the number of motorcyclists in Indonesia more and more. Safety device for motorcyclists like helmets is very important to use. But today many bikers who are less aware of the use of helmets by way of good and right, so many accidents are caused by negligence of the motorcyclist. To reduce the risk of accidents and improve the safety of motorcyclists, then made an additional safety device on the helmet in the form of safety sensors on the helmet.

Microcontroller will be active when the engine on the conditions on (standby). On conditions here also buzzer horn on the motor will be active. Once the microcontroller is active transmitter will be activated and sends a signal to a receiver located on the helmet. Buzzer will stop ringing when motorcyclists have put the helmet lock properly so that pressing the push button / switch located on the inside of the helmet.

Final results of this project could generate an additional warning device for motorcycle riders security in wireless testing has been done on the farthest distance ± 250 meters in a indoor room. At the end of the project with a wireless system specifications transmission distance of about 1000 meters to facilitate data transmission, adding safety and reduce the risk of accidents, especially for motorcycle users.

Keywords: Helm, microcontroller, transmitter, receiver, buzzer, wireless