ABSTRACT

Bicycle transportation is one of many in the current widely used today, ranging from the elderly, teenagers and even children use bicycles to carry out its activities In addition to the office to be used for school, the bike is also widely used for sports facilities and a refreshing one many users bikes to mountain biking to do to find a wonderful atmosphere and to find out how fast the stroke and distance when cycling. Based on the information is at the end of the project is designed tools to monitor the speed and distance traveled on a mountain bike.

The monitor uses a Reed Switch speed. The output of the indicator if Reed Switch Reed Switch magnet met at the location of the bicycle tire it will be read by the system and sent to an active low ATMega8535 microcontroller and displayed on the LCD and using Lithium Polymer batteries as its power supply. as well as other equipment is monitored by ATMega8535 AVR microcontroller

The results of this project is to provide convenience to the user to determine the speed of a mountain bike and a mileage rate that mountain bikers know the ability he has in.

Keyword: AVR ATMega8535, *Reed Switch,* LCD dan *Lithium Polimer*