

ABSTRACT

DEVICE OF TYRE PRESSURE SENSING FOUR-WHEEL VEHICLES BASED ON ARDUINO UNO USING SENSOR MPX5500D

The air pressure gauge on four-wheeled tires is a device design that serves as a security device by measuring air pressure in vehicle tires, as well as displaying measurements using displays on the dashboard of vehicles sent wireless communication. With the research method of reading the air pressure on the tire, the vehicle is able to display to the driver of the condition of the vehicle tire, so that later on the air pressure gauge can overcome the risk of accidents and save the life of vehicle tires.

By using the MPX5500D sensor as an air pressure reader, we get data about the air pressure on the vehicle tire, then the air pressure measurement will be sent wirelessly using Radio Frequency 433Mhz to microcontroller, which will be processed and displayed on the LCD display located on the driver dashboard . With this step the driver can find out how the condition of air pressure on vehicle tires, whether less than the standard tire air pressure or not.

With the method of research and step work tools, as well as methods and theory of existing support of air pressure, obtained from this research on the air pressure detection tool on the four-wheeled vehicle tire based on wireless communication which according to its design for the purpose of driving safety and the life of tires become more long.

Keyword : Arduino uno, MPX 5500D Sensor, Radio Frequency 433Mhz, Air pressure on four-wheeled tires.