

ABSTRACT

With the times are very fast, especially in the automotive sector makes an important requirement of a four-wheeled vehicle and two wheels is the fuel that is used. In layman people think using a high-octane fuel is better for the engine but restrained at a price higher than the low-octane fuel. Similarly, in the world of racing, many institutions of national and international racing event held a racing car and they decide for themselves octane fuel cars are used as standard. As a benchmark in Indonesia fuel sold by existing government premium 88 octane, 92 octane pertamax. While even-racing event provides a standard octane fuel at the rate of 90 or 93, and due to the lack of fuel mixing device that produces octane 90 or automatically in Indonesia, so that the author wants to create such a device.

In the final project, the writer uses the method PIDdengan using a microcontroller, so the process will be given limits octane measurement is in the range of 88 and 92 and enter the category enough or less or more. as well as the results obtained in the blending octane between pertamax and premium of 92.3, 91.4, 90.7, 90.3, 89.2.

Keywords: PID, Motor Servo, Premium 88, Pertamina 92, Ultrasonic Sensor