PERANCANGAN ALAT UKUR DAYA *PORTABLE* KENDARAAN RODA DUA BERBASIS MIKROKONTROLER (*Design of Microcontroller Based Two Wheel Vehicle Power Measurement Toll*)

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ABSTRACT

Dynotest is a machine electro - mechanic who used to measure torque and power being produced by vehicle engine. Dynotest are currently is quite expensive and dimension large enough , tending to weight and cannot be brought anywhere. So this research design aimed at producing dynotest portable can provide information performance motorcycle relatively cheap and flexible. This portable Dynotest is made by utilizing an optocoupler sensor and a load cell sensor based on a microcontroller (Arduino Uno). Arduino Uno will receive data from the optocoupler sensor and load cell sensor then transmitted via the module ISM (International Safety Management). The power calculation is the input resulting from the rotation per minute (RPM) on the roller then processed by Arduino from the multiplication of the rpm of the roller and the torque of the wheel rotation load on the roller divided by 5252. In this testing done in two times testing that is using existing dynotest and portable dynotest, the vehicle used is v-xion 150cc years 2015.It obtained from the tests are the results of comparative power (hp) on dynotest existing and dynotest portable.

Keywords: *dynotest, optocoupler, load cell, power (HP).*