ABSTRACT

Prototype Digital RPM Meter-Based Microcontroller ATMega 8 For Motorcycles With Seven Segment Viewer

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Final project is intended to have an RPM gauge Digital Prototype-Based Microcontroller ATMega 8 With Seven Segment Viewer is capable of measuring the size of a motorcycle RPM rotation. The tool is expected to facilitate the work of the motorcycle RPM gauge round, so as to solve the problem of measurement precision motorcycle RPM. The tool was created using voltage conversion is processed by the microcontroller ATmega8 and displayed using seven segment. This tool was developed in several stages, namely, (1) identification of needs, (2) Needs Analysis, (3) Design System, (4) Hardware design including: Microcontroller ATmega 8 and seven segment, (5) use the Software Design CodeVision AVR, (6) Technical Operations, and (7) Testing Tool. Prototype works by using as input pulse (clock) that comes from slow rotation motorcycle, which is processed by the microcontroller Atmega 8 and processing results are displayed to the seven segment, while the tool is in the form of hardware in the microcontroller Atmega 8 as converting pulse (clock) to digital, seven segment as a result of processing the data viewer. The performance of "Prototype Digital RPM-based microcontroller Atmega 8 with viewer Seven Segment", the whole in accordance with the defined function, ie when the bike is on the seven segment displays the input is detected. From the results of testing the prototype with RPM RPM standard error comparisons have obtained an average of 3%.