

## **ABSTRACT**

Human need for the vehicle at this point is no longer uncontested. Humans want the ease in daily living activities. The vehicle mechanic in small workshops want a fairly sophisticated technology to support day-to-day work. They need an RPM meter to facilitate his work to see the actual value of the vehicle RPM. Therefore we try look for an easy way to adjust the RPM of motorcycles is to design a system that can determine the value of RPM of a vehicle. With so is expected to be a practical way to tune the vehicle RPM record sound only with the vehicle.

In this final project will be built a system that can demonstrate the value of the vehicle RPM using the Fast Fourier Transform and Harmonic Spectrum Product. If successful, it is no longer necessary to manually measuring RPM using wired media such as digital RPM meter current also known as tachometer.

The simulation results of this system has an accuracy rate of 97%. With an accuracy of 97% can be summed up pretty well in this system in terms of the provisions in calculating RPM motorcycle using sound alone.

**Keywords : RPM, FFT, Harmonic Spectrum Product, RPM Value**