

ABSTRACT

Guitar is one of the most popular musical instrument, and can be played by everyone. Currently there are still many users who can not perform to tune guitar strings and if do it manually the results obtained are not very accurate. This can be overcome with the development of technology. Users can do this now guitar string tuning easily and accurately with the helping of an automatic guitar tuner

This automatic guitar tuner helps the user to tune the guitar strings automatically. Servo motor will rotate automatically to perform tuning after receiving information from the Arduino that has finished detecting and comparing the frequency of the strings received by the arduino with correct frequency programmed in arduino. There is a selector switch to choose which string will be set and the op amp to amplify the sound wave amplitude results in order to read excerpts arduino easily.

The results of this final project is an automatic guitar tuner that can help users perform to tune guitar strings automatically with a maximum error rate is ± 1 Hz of each string standard frequency that has been set.

Keywords : Arduino, Motor servo, Gitar listrik, Op Amp, *Selector Switch*