

ANNOTATION

Bachelor's degree project made student groups course VI PC-61 Masnuhoyu Dmitry.

For the bachelor's thesis project, it was decided to develop a device with which you can automatically tune the guitar. During the implementation of this project, the existing types of tuners were considered, the principles of their operation were described, as well as the advantages and disadvantages of existing devices.

The project is based on acoustic control methods, spectral analysis of signals and automation of the process of tuning such a stringed musical instrument as a guitar. The need to use these devices is not only for guitarists who are just beginning to learn the guitar, but also for professional musicians to quickly and accurately tune their instrument.

It was decided to assemble the device for automated guitar tuning on the basis of the Arduino Due board. During the project implementation the necessary calculations of all components of the electronic and design part of the project were performed. A 3D model of this device was also built. The development of an automated tuner for the guitar was successfully completed.

Keyword list: automation, tuning, fast Fourier transform, tuner.