During semester 4, between January and April 2017, we, Simon METAYER & Alexis BIZON, made a technical IT project in the GEII (Genie Electrique et Informatique Industriel) department of Nantes's IUT in France. We were under the supervision of Mr Patrice GRAZIOTIN, IUT's teacher.

The aim of the project was to create from scratch a guitar tuner. It might seem easy, but it requires a big software development with hard mathematics inside and a complex hardware structure to rightly acquire the guitar signal. The first task was to choose a microprocessor to process the signal quickly enough. Then, we study the music theory, indeed, notes can be calculated with mathematics formulas from the main frequency of "pure" signal; for example, just a single note of an instrument like a guitar. After that,

Key words:

Un accordeur de guitare guitar tuner