

Portable sound synthesizer with multitrack recording

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Abstract

This thesis describes a compact portable music composing device and how it was made. It discusses development of both its software and hardware. The device is based on Orange Pi board. It features a sound synthesizer, audio effects such as reverb or filter and multitrack recording. It is controlled by 12 RGB LED, small note keyboard, four rotary knobs and some buttons. The software was written in C++ and uses WiringPi, PortAudio and RapidJson libraries.

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