# MIDIbox FM

# Intro

MIDIBox FM Synthesiser is a project that uses OPL3 FM soundchips (found from many old soundcards) controlled by MIDIBox as a standalone synthesizer.

# Features

List 'em

# Skills / Equipment Required

Tools

Soldering

# Hardware

## What modules do I need?

Adjust List as required:

Core Module

LCD Module

Bankstick Module

DIN Module

DOUT Module

AOUT_LC Module

OPL3 Module

# Parts List

List of pots, buttons, faders and blah - suggestions on good parts and where to buy them + how to hook them up - links

Where to buy Parts

# Connections

Connection diagrams

#### Control Cable Timing Issue

It was been noted on this forum article that errors can surface if the control cable between CORE and OPL3 boards is too long.

- The error shown in the forum article was found when running the testtone application.
- The specific error in the forum article that tone can be heard on outputs 1&2, but not outputs 3&4, however there is no guarantee that this is the only such error that could arise from long cable.
- The error was solved by shortening the control cable between CORE and OPLE3 boards. The cause was confirmed by switching back to a longer cable, at which point the error re-surfaced.
- The error was shown to be on the control cable (RS/A0/A1/WR), not the data cable (D0-D7), however it is advisable to make both these cables as short as is practicable.

# Enclosure / Case

Enclosure ideas - link to case construction tips? / provide space to encourage other users to wikify their case designs

### Enclosure References

Constructing Enclosures

# Software

# Setting Up

We recommend you read software before you continue.

## Download

Links

## Setup Instructions

Up to you

# Extra

Usage Manual

Yamaha's Definition of FM Synthesis and How it Works

Overview uCApps

User Manual uCApps

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