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## **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

**OPL3 Module** 

**LCD** Module

**Bankstick Module** 

**DIN Module** 

**DOUT Module** 

AOUT Module —or— AOUT\_NG 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

### **Soundcards**

A list of soundcards with YMF262 and/or YAC512 chips

Soundcards

### **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** 

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## **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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