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## HOME

I was totally new to midibox and electronics and had limited midi exposure. I still have little idea (I will state incorrect info - please correct me by putting your name and the correction beside it).

Coming across this site was exciting because an application that I couldn't find in retail was a possibility here. It was still very daunting as I didn't even know the basics.

My intention is to scribble down information and suggestions, through a step by step approach to building an official project. Once the information is written, I'll make an effort with presentation.

This is basically written for the people with very limited electronics background like me.

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## MIDIMON

The first project I am attempting is the MIDIMON. A simple device that shows received midi information on an LCD screen.

Link to MIDIMON :

- http://www.ucapps.de/ [1] (scroll down the left hand side and under MBHP[2] projects, click on MIDIMON).

Things you need to know to create the MIDMON are:

- What components are required and where to get them.
- Midibox background and basics.
- How to solder.
- How to use a digital multimeter.
- Some basic electronics knowledge.
- How to connect a midi cable to a PC.
- How to download and install a new program.
- How to troubleshoot.
- How to search the forum.

### WHAT COMPONENTS ARE REQUIRED AND WHERE TO GET THEM

You will need to order the following from SmashTV[3]:

- 1 core kit (item 2) with PIC18F452 - PIC ID header 0000 0000 0000[4].
- 1 Female SIL crimp connector (item 25).
- 2 10 pin female DIL IDC connector (item 33).
- 1 16 pin female DIL IDC connector (item 32).
- 0.5m 10 pin ribbon cable (item 34)
- 0.5m 16 pin ribbon cable (item 35)

You will also need miscellaneous components from elsewhere[5]:

- A bread board for the extra resistors and switches.
- 8 10kOhm resistors (try get 1% tolerance - gold band at end).
- 0.5m wire to connect switches and resistors to the core module.

The following equipment is needed for preparation and soldering:

- 0.7mm solder.
- Soldering iron (no greater than 25 Watt).[6])
- Soldering iron stand. (A coil sitting on base to sit solder in while not working with it)
- Sponge (can use dish cloth sponge from kitchen)
- 2 third arms. (You can use one but I liked using the second to keep the wires taut while soldering.)
- nose pliers. (needed to bend component wires)
- side-cutters.
- desoldering gun.

The following equipment is needed for testing:

- Digital multimeter. (Cheapies are fine generally).

The following equipment is needed for the casing:

- User preference and flair[8]. Also, I haven't got this far yet

#### MIDIBOX BACKGROUND AND BASICS

From what I gather (I'll rejig when I understand better):

- Midibox is the creation of Thorstein Klose which standardises a series of DYI (do it yourself) midi applications, making them accessible to anyone.
- He has developed a series of modular systems which can be connected in varying ways to create useful midi applications.
- Code required for the PIC (programmable integrated circuit or microchip. It is the brains of the application) to drive the application has been developed for a series of “official” projects. It is available for anyone to download and use (non-commercially).
- There are 3 main areas in the midibox community:
    1. http://www.ucapps.de/ [1]. This is where all the downloadble applications are stored and is the base of midibox.
    2. Midibox.org. This is a wiki and a house for information. All information here is accesible to edit and has been added to by the midibox community over the years. Anyone can create a new page and link it to any other page in the wiki - see dokuwiki
    3. Forum

(1) uCapps - Microchip Applications
(2) MBHP - Midibox Hardware Platform
(3) SmashTV - website http://www.avishowtech.com/mbhp/buy.html
(4) PIC ID header - You only need different if you plan to link PIC's together
(5) Jaycar will have most of the components required. They may not have the 4×20 LCD.I bought mine on ebay from http://stores.ebay.com.au/square-man. You can source the extra information from

anywhere. Some other online retailers in Australia I have heard are good are Oatley and Altronics.
(6) The finer the better. Probably get a regulated temperature one (I can't as I haven't much experience. There are threads on the forum[(7)])
(7) Midibox forum - http://www.midibox.org/forum/index.php
(8) See the 'Midibox of the week' thread for examples:
http://www.midibox.org/forum/index.php/board,15.0.html

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