Running MAXMAN by Nick Martens on MOD-WII-UEXT + any DUINOMITE board

(DuinoMite, DuinoMite Mini, DuinoMite Mega, DuinoMite eMega)

Step-by-step guide

Initial release, April 2012

1. Introduction to Duinomite boards

DuinoMite is a Maximite Compatible Basic computer, originally designed by Geoff Graham, with additional features and Arduino like layout. DuinoMite allows you to program in BASIC language and have VGA and Keyboard interface, so you can develop and write your code in Basic without the need of a personal computer. You can store your code on the SD-CARD and to execute it on power up thorugh autoexec.bas main code.

Ken Segler and Don from Dontronics are major driving factors behind the Duinomite boards.

2. Requirements and preparations

2.1 Any DUINOMITE board

Standard DUINOMITE, DUINOMITE-MINI, DUINOMITE-MEGA, DUINOMITE-EMEGA

2.2 MOD-WII-UEXT

2.3 SD Card

You will need one of those.

2.4 VGA capable monitor

The game doesn't work via the USB.

2.5 Firmware released after 7th of April 2012, game files, drivers

You can get these from the github of DUINOMITE:
https://github.com/OLIMEX/DuinoMite/tree/master/SOFTWARE

2.6 Recommended additional hardware/software

It is recommended to have a PS/2 keyboard connected to the DUINOMITE board; You might need to download latest firmware – to install it you will need either a miniUSB – USB-typeA cable and the Microchip's HID bootloader or PIC32 programmer that has support for MX795.

3. Setting up the things together and example program/debug

I used Windows 7 x64; DUIOMITE-MINI/DUINOMITE-MEGA; Monitor Phillips 170s

3.1 Download the latest release of firmware from the GITHUB

The address is: https://github.com/OLIMEX/DuinoMite/downloads; there is an option to download as zip and that would be the latest stable version.

3.2 Update your firmware if the firmware that your board came with is released before 7th of April 2012

Connect the board in bootloader mode via the USB-OTG (hold button "BUT", tap "RST" then release "BUT" - so the two (of the) LEDS start binking consecutively. Run the HIDBootloader.exe (can be found in the \SOFTWARE\HID-BOOTLOADER folder in the archive you downloaded in 3.1).

Important! If Windows asks for drivers when you enter bootloader mode just install the drivers available in \SOFTWARE\DRIVERS in the archive you downloaded in 3.1. They might require manually to point the installer to them (it is better to skip the automatic searches).

For file to use for programming via the HIDBootloader.exe use the ones available in \SOFTWARE\FIRMWARE.

3.3 Prepare your SD card with the necessary game files

The MAXMAN game is written entirely by one of the awesome members of the MAXIMITE project – Nick Martens.

To be able to play it you need to download it to and SD card. Plug your card in your personal computer and transfer the files found in \SOFTWARE\GAMES with name MAXMAN. If it is an archive you need to extract and place its contents on the MicroSD card.

The *.BAS file is the basic code of the game. It can be opened and reviewed with a text editor.

The HISCORE.DAT is the file containing high scores. It can be opened and reviewed with text editor also.

3.4 Plug the hardware together

Connect everything together – the VGA monitor to the board, the PS/2 keyboard, the MOD-WW to the UEXT connector, insert the SD card in the DUINOMITE board.

At last provide power to the monitor and to the board.

Now when you press "ENTER" on the board you should see the initial information about the version of the software.

3.5 Navigate to .bas and run the code

Use FILES and CHDIR commands to navigate to the location of MAXMAN.BAS on the SD card:

Files – shows the contents of the current directory
Chdir "dirname – changes the current directory to directory dirname (note the ")

Then enter:

run "MAXMAN.bas – runs the game (not the ")

3.6 When the game starts select either 100HZ or 400HZ mode

Important! If the code shows that there is a problem on line 480 of the code just open the MAXMAN.BAS with a text editor and delete line 480, save the file and upload it again on the SD card. This error is caused because the initial project uses custom made controller that takes UEXT pins which are required and taken in our case.

For Olimex products visit: http://olimex.com/dev/index.html
The DUINOMITE forum: http://www.kenseglerdesigns.com/cms/forums/index.php