PIC32 – PINGUINO

the first Arduino-compatible multi-target platform

The PIC32-Pinguino is an ARDUINO-like board with PIC32MX440F256H

Visit http://pinguino.cc
for all the latest information on pinguino software and hardware

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INSTALLATION

Instruction resources –the pinguino.cc website

WINDOWS

To download the IDE + compiler, go to this page:
http://code.google.com/p/pinguino32/downloads/list

Download the latest version for windows (most likely a
single .exe file). Download it somewhere convenient and double-click on the .exe file.

IMPORTANT: Make sure to install it in a folder path without any spaces in the name (for example "C:\" or C:\whatever\whatever2). A space in the name of the path will crash the compiler and you won't be able to compile anything. **ALSO,** for the compiler to work, the source code (.c, .cpp, .pde e.t.c.) files also have to be in a folder, whose path has absolutely no spaces(for example D:\pinguino\source\source1\)

When you've finished installing the IDE, you need to configure your computer to correctly recognize the board.

Pinguino Driver

Before connecting your board, download the Microchip modified driver provided by hackinglab:
http://www.hackinglab.org/pinguino/download/driver%20pinguino%20windows/

Extract the driver in a new folder.

Now it's time to connect your pic32-pinguino board. Hold the button assigned for the bootloader, AND THEN plug the USB, and release the button. Windows will ask for a driver.
Choose the second option – Install from a specific location:

Click next. On the next screen tick "Include this location in the search: ". Below is a field where the path to your designated driver should be. Point to the right path by clicking "Browse" and navigate to the folder of the modified Microchip driver you downloaded earlier. Click next and wait for the installer to finish.
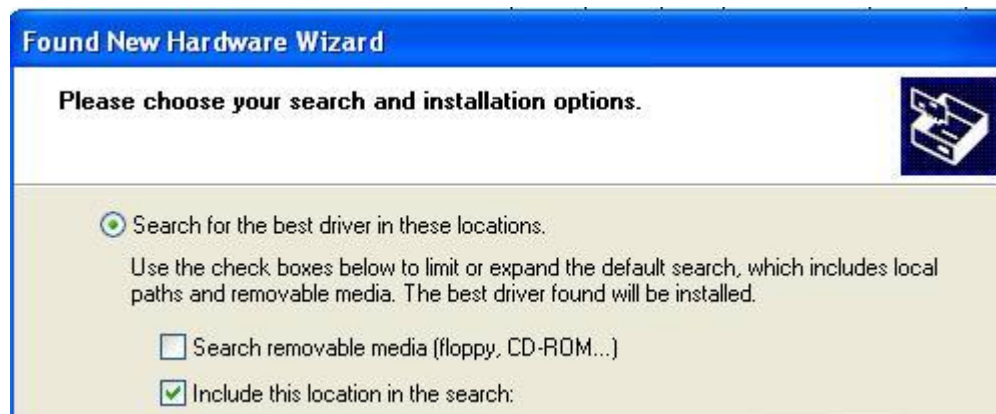
If everything is successful, your PC should now be properly configured to recognize your board.

Start the IDE. In the Graphic interface, choose Preferences/Board/PIC32 Pinguino.

Notes on uploading sketches to your pinguino:
- The sketch must be saved first (refer to the beginning of this document because there are some specifics). Even if you open an example and don't change it, it still has to be saved.

- Compilation and uploading is different from the Arduino IDE. You have to compile your sketch first. Wait for the output below to show that the process has been successful.
- Put your board in bootloader mode. How: Press and hold the button next to where the usb cable connects to the board. While holding, press the other button on the board (located on the opposite side from the first) once and then release the first button. You should see two of the board LEDs blink continuously, indicating that you've entered bootloader mode successfully.
- In the IDE, click the upload button, wait for the process to finish – and you are done! If you followed all the steps correctly, the sketch should now be running on your board.
- The IDE comes with a lot of examples. Open them by going to File/Open/ and navigating to /<the folder you installed the IDE in>/library/examples/

Visit pinguino.cc for reference materials, examples, support and message boards.

Some useful links for those who are new to the C/C++ language and/or the Pinguino environment:

http://www.acm.uiuc.edu/webmonkeys/book/c_guide/

http://en.wikipedia.org/wiki/C_(programming_language)

http://www.cplusplus.com/doc/tutorial/

http://en.wikipedia.org/wiki/C%2B%2B

http://www.olimex.com/