

fino - Arduino Adapter for Raspberry Pi Boards

version 1.0

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Quick Start

This is the documentation for Bugblat's *Fino* board.

Warning

Fino plus PIF is a 3.3 Volt system. Do not install on a 5V system.

Assembly

The Fino board is delivered unassembled. The package includes

- a Fino PCB
- a standard 26-way boxed header matching the expansion connector on a Raspberry Pi
- a 36-way strip of pin headers.

Here are the assembly stages:

- install and solder the 26-way boxed header on the top side of the Fino board. Note that pin-1 on the header is marked on the plastic housing. Usually the pin-1 symbol is a triangle, though other symbols are possible.
- cut the pin headers to length (any small wire cutter will do this) and install the headers on the *reverse* side of the Fino board. There is a 6-way connector and an 8-way connector on one edge of the board and an 8-way connector and a 10-way connector on the other edge.

Optional Oscillator

Note that the spacing between the 8-way connector and the 10-way connector is very non-standard. Always install the Arduino pins in the **outermost** row of holes.

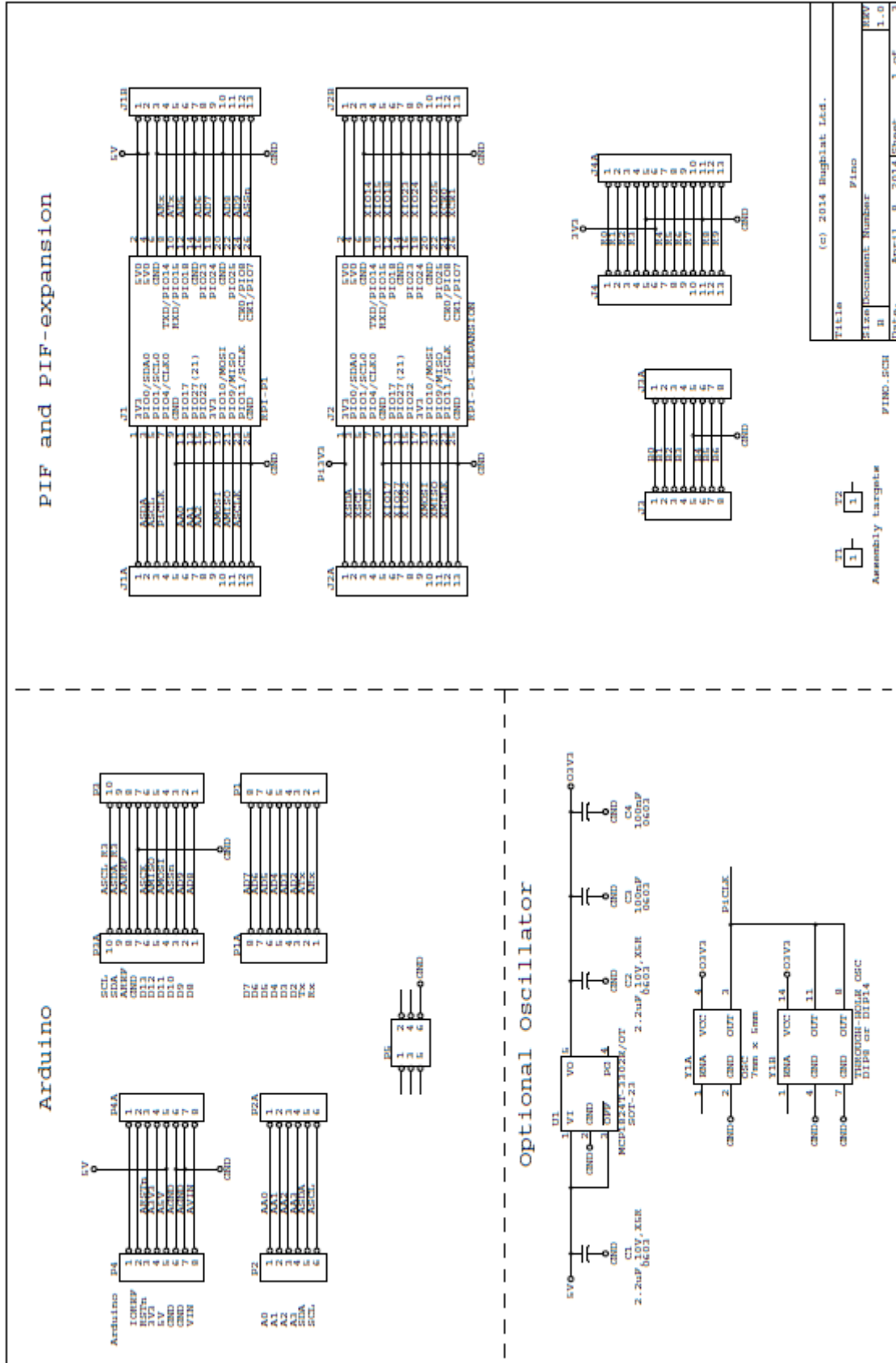
Optional Oscillator

Your application may need an accurate clock source. This can be supplied by the *clkout* pin that is available on most recent microprocessors - check the documentation for the micro on your baseboard.

If you cannot use a *clkout* pin, the Fino board has pads for installing a packaged oscillator - consult the Fino schematic.

- install a 5V to 3.3V LDO in site U1. As shown on the schematic, a Microchip MCP1824T-3302E/OT is suitable. Also install the recommended decoupling capacitors.
- install a suitable oscillator in sites Y1A or Y1B. Only install one oscillator. Site Y1A has the footprint for a 7mm x 5mm surface mount oscillator. Site Y1B will take a 14-pin through hole socket on which you can mount a 14-pin oscillator or an 8-pin oscillator.

Schematic



Legal Stuff

This is a board for inquisitive minds with a basic understanding of electronics. You know what that means.

Since the board is not a completed product it may not meet all the regulatory and safety compliance standards which may normally be associated with similar items. You assume full responsibility to determine and/or assure compliance with any such standards and related certifications as may be applicable. You will employ reasonable safeguards to ensure that your use of the the board will not result in any property damage or injury or death, even if the the board should fail to perform as described or expected.

The Design

The design materials referred to in this document are **not supported** and do **not** constitute a reference design.

To the extent permitted by applicable law there is no warranty for the design materials. Except when otherwise stated in writing the copyright holders and/or other parties provide the design materials as is without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The entire risk as to the quality and performance of the design materials is with you. Should the design materials prove defective, you assume the cost of all necessary servicing, repair or correction.

This board was designed as an evaluation and development tool. It was not designed with any other application in mind. As such, these design materials may or may not be suitable for any other purposes. If any design material is used it becomes your responsibility as to whether it meets your specific needs or the needs of your specific applications and the design material may require changes to meet your requirements.