

Overview

HTTPS <https://bitbucket.org/DawnRobotics/>

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DawnRobotics
pi_isp

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NAVIGATION

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This repository contains a precompiled version of avrdude (source from <https://github.com/kcuzner/avrdude>) which can be used to flash arduino bootloaders using the Raspberry Pi GPIO pins.

Installation

Run

```
sudo apt-get install arduino
git clone https://bitbucket.org/DawnRobotics/p
cd pi_isp
```

Connecting your Arduino Compatible Board to the Raspberry Pi

For safety, it's recommended that you make these connections with the power off.

To power the Arduino compatible board, the simplest option is to connect it to the Pi using a USB cable.

Now connect up the 4 programming wires. **Important** If your Arduino compatible board runs at 5V (this is true of the majority of Arduino compatible boards) then you must level shift the programming lines to the 3.3V of the Pi, otherwise you will damage the Pi. A simple (if rather hacky way) to prevent damage to the Pi is to put 1K resistors on each of the programming lines.

The Pi GPIO pins are described [here](#) a good pinout of the Arduino programming header (the 3x2 connector) is given [here](#). **Note** On the Dagu Mini Driver board, the pin names of the ISP header are given on the back of the board.

The connections to make are (remember the level shifting!)

| | | |
|---------|--------|-------------|
| GPIO 25 | <----> | RESET (RST) |
| GPIO 11 | <----> | SCK |
| GPIO 9 | <----> | MISO (MI) |
| GPIO 10 | <----> | MOSI (MO) |

Recent activity



1 commit

Pushed to DawnRobotics/pi_isp

[610e794](#) Updated installation instructions.

Alan Broun · 2015-07-17



1 commit

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[1e849f3](#) Renamed README so that Mark...

Alan Broun · 2015-07-17



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Pushed to DawnRobotics/pi_isp

[3eee635](#) README edited online with Bitbu...

Alan Broun · 2015-04-08



1 commit

Pushed to DawnRobotics/pi_isp

[691a3c3](#) Removed extra) from README

Alan Broun · 2014-11-14



1 commit

Pushed to DawnRobotics/pi_isp

[ad9a549](#) Added a diagram to the README

Alan Broun · 2014-11-14



1 commit

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[32a9709](#) Corrected path of git repository i...

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2 commits

Pushed to DawnRobotics/pi_isp

[74e6a38](#) Small alteration to README[ae6c2d8](#) Initial commit

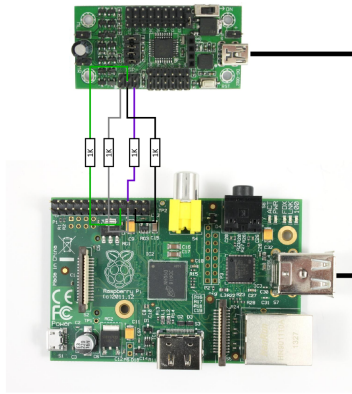
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DawnRobotics/pi_isp

Repository created

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Flashing the Bootloader

If you've come here to reflash your Mini Driver's bootloader, you can do this by running

```
sudo ./rescue_mini_driver
```

If you'd like to flash another bootloader you would run

```
sudo ./flash_arduino_bootloader BOARD_TYPE
```

Where BOARD_TYPE is the Arduino to flash (i.e. uno). For a list of board types run

```
./flash_arduino_bootloader -l
```