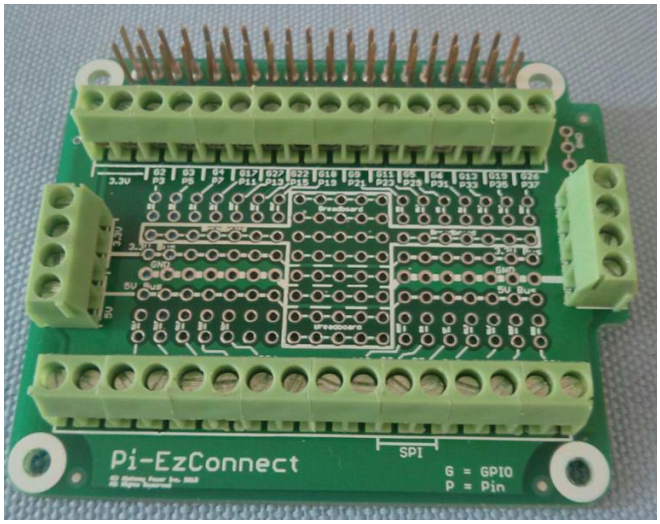
Pi-EzConnect

Key Features

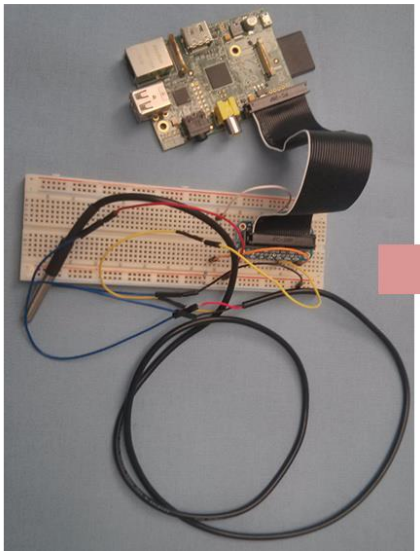
- *Allows multiple digital sensors (GPIO) to be connected to a single Raspberry Pi – leveraging the full power of the Raspberry Pi*
- *Solderless or soldered connections for all GPIO's on a Raspberry Pi*
- *Mini breadboard for adding components*
- *Add standard male or female headers for breadboard like functionality*
- *Power (both 5V and 3.3V) as well as ground connections available*
- *Fuses protect 5V bus as well as 3.3 V bus*
- *Compact footprint – fits easily on top of a Raspberry Pi*
- *Fully documented pins – easily connect to pin numbers or GPIO number without referring to external charts*



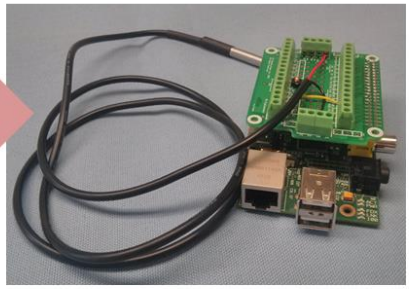
Pi-EzConnect makes it possible to connect multiple sensors (and other electronic devices / components) to multiple GPIOs on a Raspberry Pi. With Pi-EzConnect, you are no longer limited in the use of a Raspberry Pi. Leverage all the GPIO pins on the Raspberry Pi. Whether the Raspberry Pi is used as a data logger, a drone, a robot, for video surveillance or anything else, you need to connect sensors as well as other electronic components such as pull up or pull down resistors, LED's etc. These sensors are then managed by the Raspberry Pi. Pi-EzConnect stacks on top of a Raspberry Pi making it possible to add multiple sensors to the Raspberry Pi in the same foot print as the Raspberry Pi. Further, these sensors are securely connected using terminal blocks.

Pi-EzConnect simplifies the addition of sensors. An example of adding a temperature probe is shown.

Temperature data logger application without Pi EzConnect



Same Temperature data logger application with Pi EzConnect

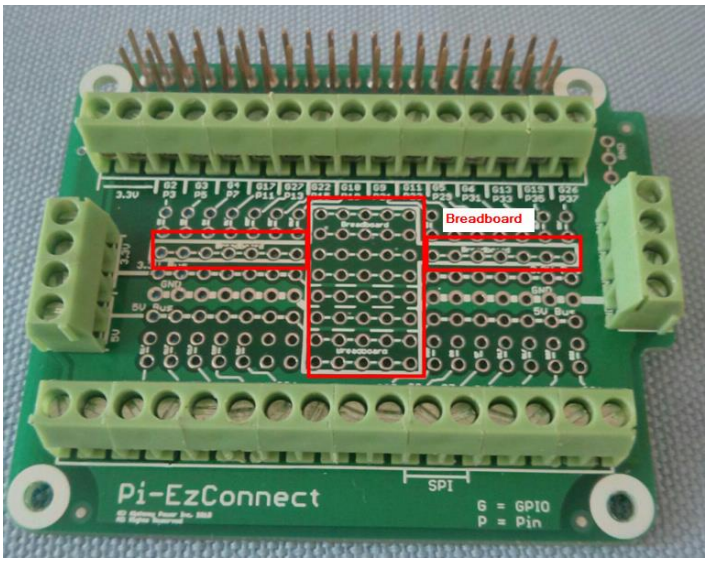


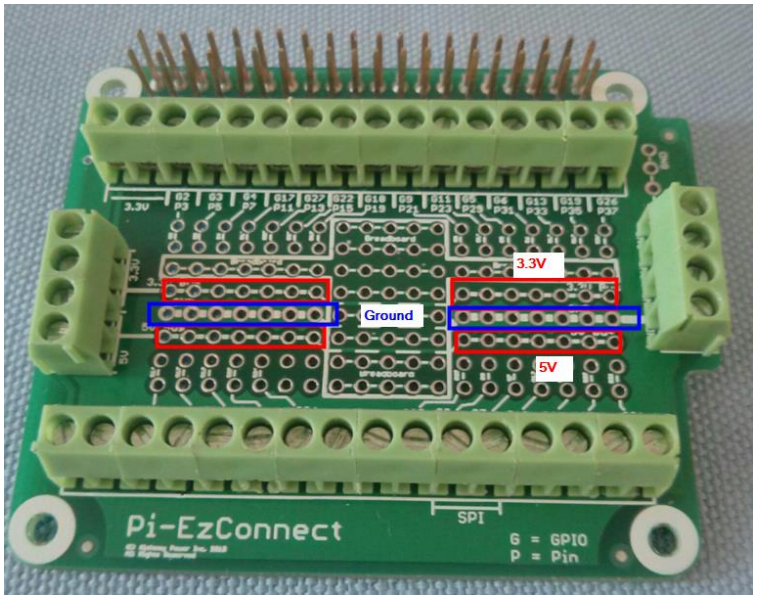
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Before Pi-EzConnect, a flat ribbon cable, a breadboard and other wires are being used to connect the temperature sensor to the Raspberry Pi. With the Pi-EzConnect, the connection is simplified as shown.

Watch the video on You Tube - https://youtu.be/oChXSE0etQw

Picture on the right shows the breadboard area of Pi-EzConnect board.

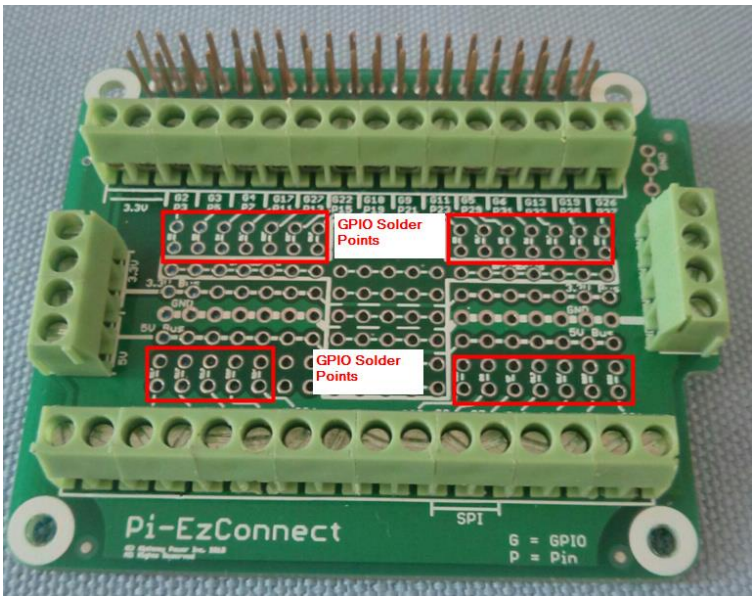


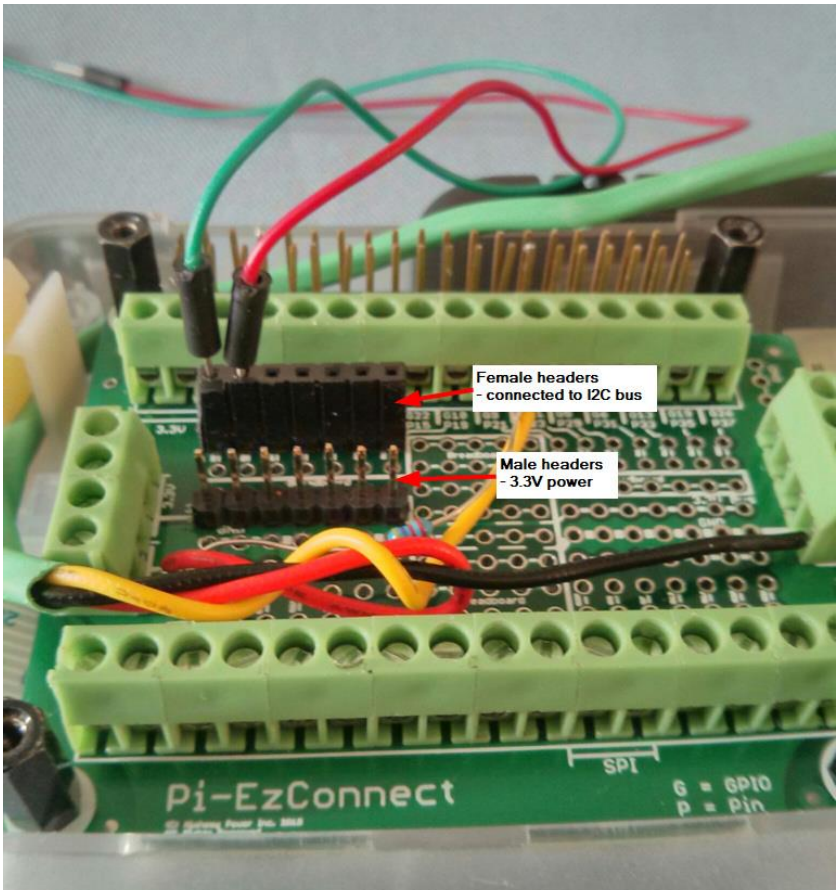


Power bus – both 3.3V as well as the 5V power bus is available on Pi-EzConnect. Ground bus is also available (shown in blue) on Pi-EzConnect.

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Electronic devices such as pull up or pull down resistors, LEDs, other components can easily be soldered onto the solder points on the Pi-EzConnect. Sensors can also be soldered in these locations if needed.



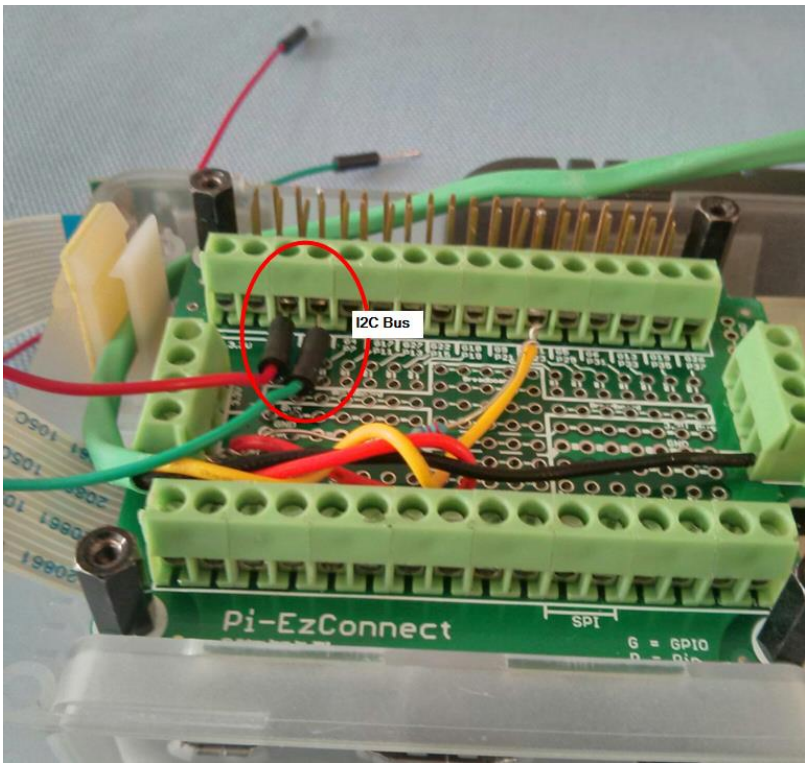


As an example, the connection to the I2C bus is shown below. Two methods are displayed. In the first method, the female headers are soldered in the GPIO area, and the connections are used for I2C bus.

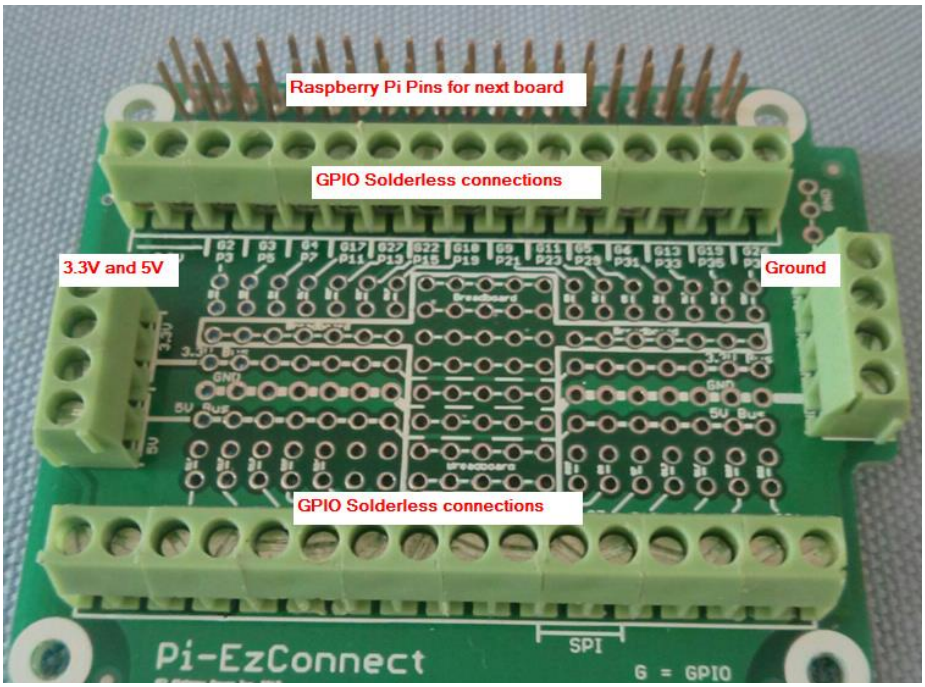
Note, male headers have been added in one half of the 3.3V bus to power the sensors for the I2C bus.

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Alternately, the I2C bus connections can be connected to the terminal blocks as shown. The connections cannot come off easily as they are held down securely.



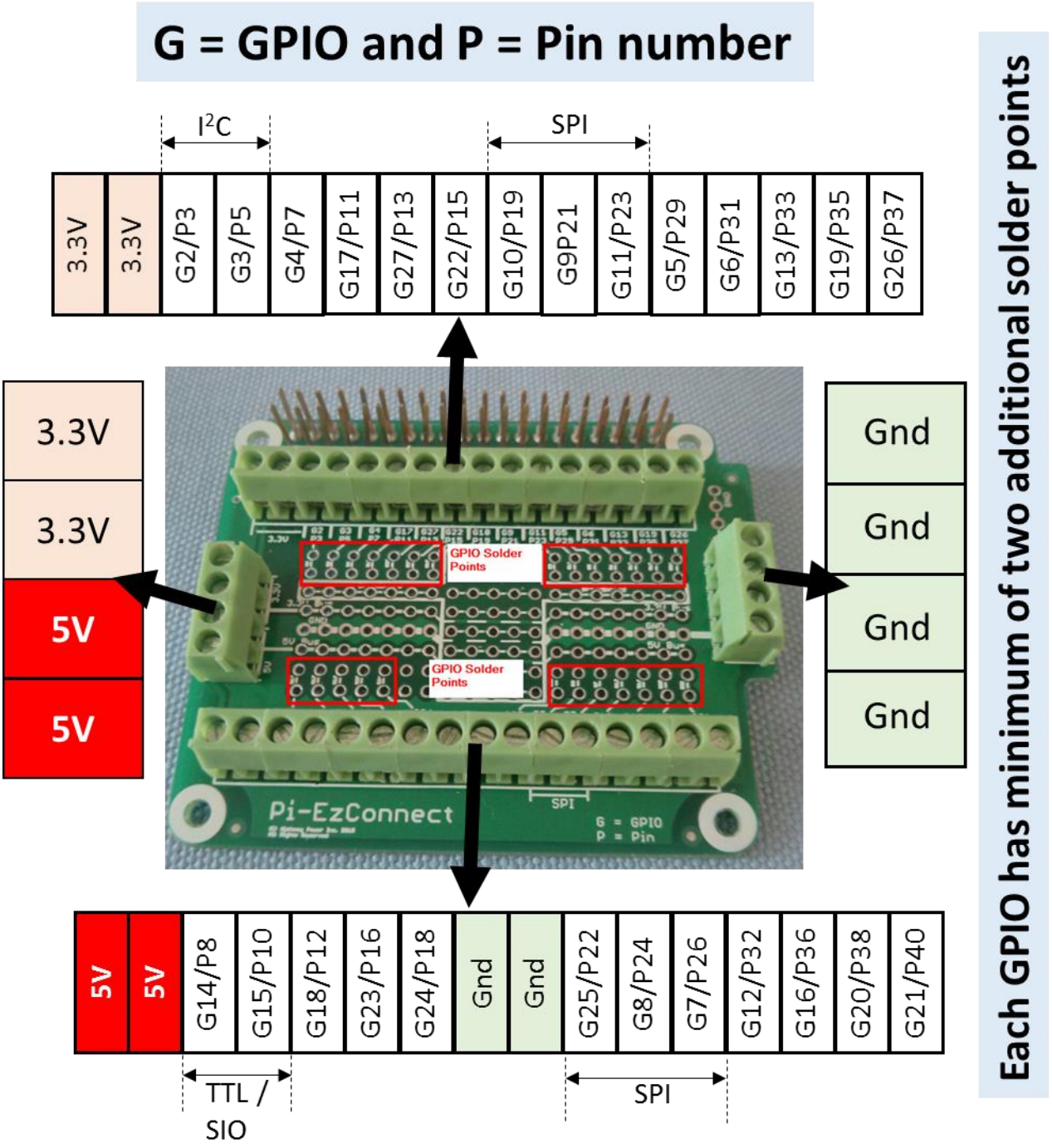
Both methods – the first one using solders to connect headers, and the second method using solderless connections allow connections to the I2C bus.



The terminal blocks provide access to all GPIOs on the Raspberry Pi. They also provide access to 3.3V, 5V as well as Ground.

The header pins can be extended to allow connections to another board stacked on top of the Pi-EzConnect board.

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Pin out configuration details for Pi-EzConnect. The GPIO solder points are also shown in the picture.

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Specifications

General Information

Model Number: Pi-EzConnect.

Protection: resettable 8V, 1.6A fuse. Protects 3.3V and 5V power.

GPIO and pin connections: Displayed on the board. G followed by number corresponds to GPIO number. P followed by number corresponds to pin number. For example G3, P5 corresponds to GIPO 5, Pin 3.

Header connections: 0.1” or 2.54 mm spaced headers, male or female.

Standoff connections: Matches Raspberry Pi model A+, B+, Pi 2 and Pi 3. Recommend brass standoff’s for Raspberry Pi.

Other information: A minimum of 2 solder points for each Raspberry Pi header pin or GPIO (except those pins which are reserved by Raspberry Pi foundation).

Breadboard: Ten (10) connection strings for breadboard – each string has seven (7) connection points.

Dimension/Weight:

Board Dimensions: 69mmx56mm.

Board thickness: 1.5mm.

Terminal Blocks: 9mm from base of the board.

Weight: 32 grams (appx 1.2 ounces)

Raspberry Pi connector header dimensions: Female pins – 11mm, male pins 12mm (note – board thickness is appx 2 mm – so only 10mm of the pins are accessible.)

Safety:

Passive board. Power ports connect to power pins on the Raspberry Pi.

Warranty:

90 days parts and labor limited warranty.

Recommended Accessories:

Most accessories can be purchased from several web sites or online stores. Adafruit™ web site (www.adafruit.com) accessories are listed as a reference only.

Standoff – example, Adafruit Product ID 2336 or 2337

Headers – example, Adafruit Product ID 85 – 0.1” or 2.54 mm spaced male or female headers.

Please follow recommended safety regulations when soldering or using electronic components or making connections or connecting power supplies to Raspberry Pi.

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