

Pi_grammer v10
SPI adapter wiring instructions
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4/19/2017

For use with “linuxspi” programmer in avrdude.

Note, I originally designed the Pi_grammer to use GPIO pins to “bitbang” SPI. This is slower than using the built in SPI hardware pins on the raspi. And is problematic when programming large hex files.

The Pi_grammer hardware should be revised to use the true SPI hardware pins (and include a logic level converter to allow for 5V targets), but for now, we can wire up our adapters and only use it on 3.3V boards.

Here are the SPI hardware pins:

Raspberry Pi2 GPIO Header				
Pin#	NAME		NAME	Pin#
01	3.3v DC Power		DC Power 5v	02
03	GPIO02 (SDA1 , I²C)		DC Power 5v	04
05	GPIO03 (SCL1 , I²C)		Ground	06
07	GPIO04 (GPIO_GCLK)		(TXD0) GPIO14	08
09	Ground		(RXD0) GPIO15	10
11	GPIO17 (GPIO_GEN0)		(GPIO_GEN1) GPIO18	12
13	GPIO27 (GPIO_GEN2)		Ground	14
15	GPIO22 (GPIO_GEN3)		(GPIO_GEN4) GPIO23	16
17	3.3v DC Power		(GPIO_GEN5) GPIO24	18
19	GPIO10 (SPI_MOSI)		Ground	20
21	GPIO09 (SPI_MISO)		(GPIO_GEN6) GPIO25	22
23	GPIO11 (SPI_CLK)		(SPI_CE0_N) GPIO08	24
25	Ground		(SPI_CE1_N) GPIO07	26
27	ID_SD (I²C ID EEPROM)		(I²C ID EEPROM) ID_SC	28
29	GPIO05		Ground	30
31	GPIO06		GPIO12	32
33	GPIO13		Ground	34
35	GPIO19		GPIO16	36
37	GPIO26		GPIO20	38
39	Ground		GPIO21	40

Rev 1
26/01/2014

http://www.element14.com

This is what it looks like on my soldered board. The MOSI/MISO/CLK actually line up nicely with the 1x6 adapter order.

