Bright Pi v1.0 Code Examples - Pi Supply

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Bright Pi v1.0 Code Examples

ADD ON BOARDS, CODE EXAMPLES, PI SUPPLY, RASPBERRY PI, RESOURC
BOARDS, BREAKOUT, BRIGHT PI, GPIO, I2C, PI SUPPLY, RASPBERRY PI18 C

To get the Bright Pi working on the Raspberry Pi, you r
I2C. You can find a great guide on setting up I2C on the A
here.

Once I2C is all set up, then from command line to turn only all white LEDs on:

sudo i2cset -y 1 0x70 0x00 0x5a

To turn only all IR LEDs on:

sudo i2cset -y 1 0x70 0x00 0xa5

To turn all LEDs on:

sudo i2cset -y 1 0x70 0x00 0xff

Then you need to turn the gain up to full using:

sudo i2cset -y 1 0x70 0x09 0x0f

Then you need to turn brightness of individual LEDs up. For white:

sudo i2cset -y 1 0x70 0x02 0x32
sudo i2cset -y 1 0x70 0x04 0x32
sudo i2cset -y 1 0x70 0x05 0x32
sudo i2cset -y 1 0x70 0x07 0x32

For IR:

sudo i2cset -y 1 0x70 0x01 0x32
sudo i2cset -y 1 0x70 0x03 0x32
sudo i2cset -y 1 0x70 0x06 0x32
sudo i2cset -y 1 0x70 0x08 0x32

If you need to turn all the LEDs off:

sudo i2cset -y 1 0x70 0x00 0x00

The above instructions assume you have a Rev 2 (or newer) Raspberry Pi.
original Rev 1 Model B Raspberry Pi then you will need to change the “-y 1″
Rev 1 Model B Raspberry Pis (with 256 MB of RAM) use I2C port 0, whereа
use I2C port 1.

That’s it really! You can vary brightness either by changing overall gain down,
individual LEDs brightness down. This can be done from within Python to
guides up for this very soon. We are also intending to create an easy to use F
as hopefully introducing support in Scratch.

For those that would like a bit more information about the exact operation o
LED driver chip on the board, it is a Semtech SC620 part. You can find
Semtech website here and the full datasheet here. You may notice from the
are only 8 controllable channels on this driver chip, and 12 LEDs in total.
individually controllable, whereas the IR LEDs are controllable in banks of tw
IR LEDs correspond to the two LEDs closest to each white LED at the corner.

For information on how to assemble the Bright Pi, please visit the assembl
purchase the Bright Pi you can visit the product page here. In the pictures the
on a Pimoroni Raspberry Pi Camera Mount which is the perfect addition to the

← Bright Pi v1.0 Assembly Instructions
Open Source Case Design for Raspberry Pi M

18 Responses to “Bright Pi v1.0 Code Example

Michael Gomes September 9, 2014 at 1:06 pm Permalink

How do you turn all the LEDs off again?

Reply

Aaron September 9, 2014 at 1:13 pm Permalink

To turn all the LEDs off the following code should work:

i2cset -y 1 0x70 0x00 0x00

I will add this to the code above shortly.

Reply

Manuel September 16, 2014 at 8:13 pm Permalink

These code examples don’t work at all for me. **http://f.bonk.io/s/YzgyNWMx.**

Anybody has a clue what I’m doing wrong?

Reply

Aaron September 18, 2014 at 1:39 am Permalink

What operating system are you using? And is this a model B

Reply

Manuel September 18, 2014 at 10:19 pm Per

I’ve tried both Raspbian and Arch Linux. It’s a
MB RAM).

Reply

Aaron September 18, 2014 at 10:

Try with sudo in front of the comm
you didn’t have that.

Will update code examples to reflec