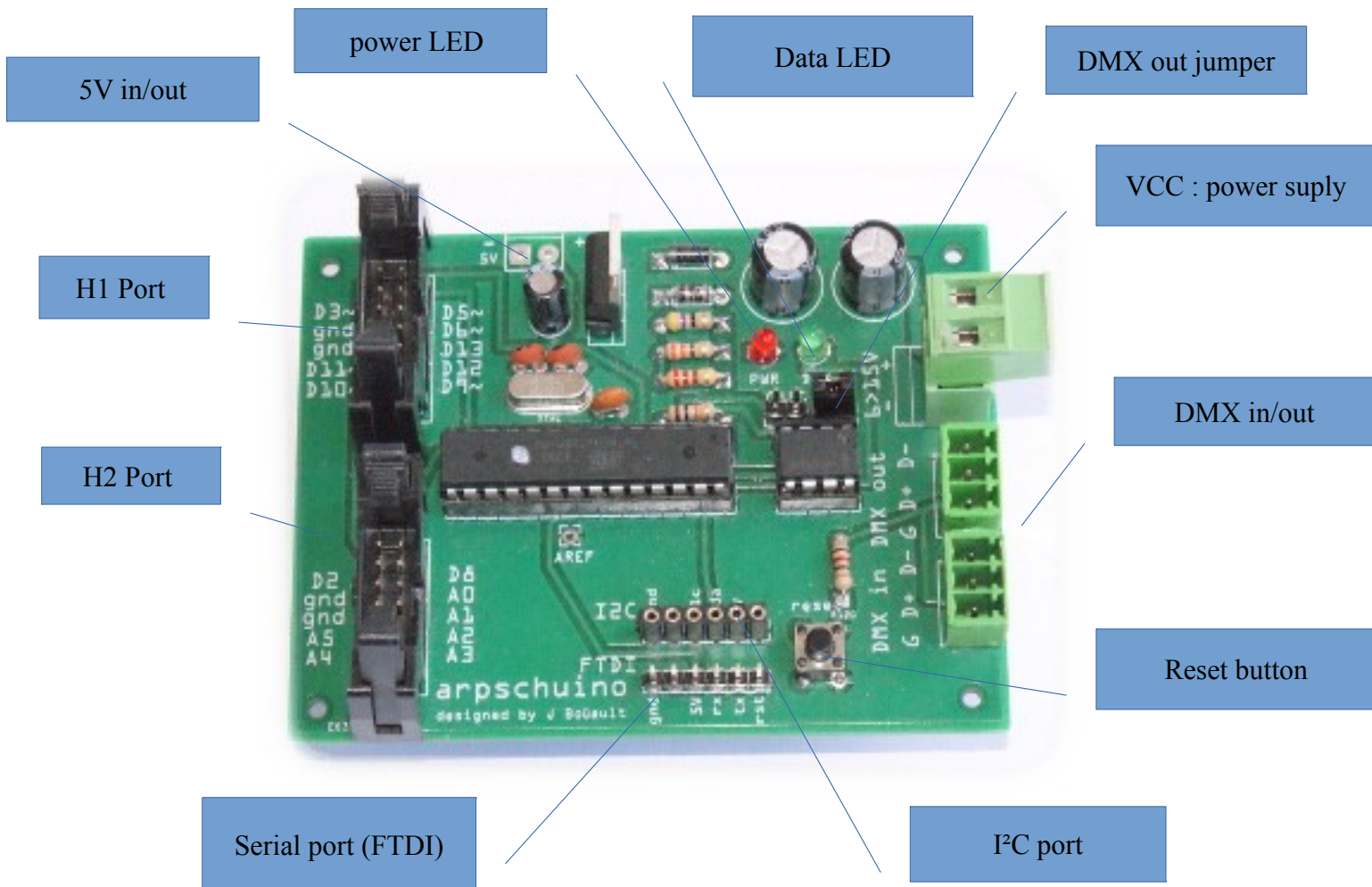


arpschuino

user guide

-1- Description :



- H1 and H2Port :
The main in/out arpschuino's pins, each port includes 8 input/outputs pins and ground (gnd).
- Serial port (FTDI)
The serial port is used to program the arpschuino.
- I²C port
To change the DMX address with the [arpdress board](#), to plug the arpsensors and many I²C devices (PCA9685, rtc...).

- Reset button
As indicated by his name! Also used to assign the DMX address with the [arpdress board](#).
- Ports DMX in/out
To receive or send DMX. You need an [XLR adapter](#) to connect it to the DMX array.
- VCC : power supply :
arpschuino needs a DC power supply, the voltage should be between 6 and 15V . Avoid limits, it's better between 7 and 12V. In the case of a power supply on battery, the 9v battery is the best choice.
- DMX in jumper:
To receive DMX, this jumper must be in place. To use the serial port, remove it.
- Data LED :
With the default code, the LED blinks when receiving DMX. It's possible to use it as a multi-prupose indicator, it is connected to pin D4 Arduino language.
- Power LED :
The LED lights red when arpschuino is on.
If you find that the LEDs shine too hard, you can substitute the corresponding resistor by 1Kohm resistance.
- 5V in/out :
When arpschuino is powered by the VCC port, we can pick up 5V to power another circuit. Consumption should not exceed 300mA, so the voltage regulator should not be heated.
This port can also be used to power the arpschuino. Caution : it is downstream of the voltage regulator, so choose a perfectly regulated supply between 3 and 5V.
Use it in the case of 3×1.5V battery.

-2- Default code

The arpschuino is pre-programed, default is [16 arpschuino soft pwm out].

With this code, the apschuino is a 16 channels low voltage dimmer, with the [arpower](#) for the power part.

The default DMX address is 1, it can be changed with the [arpdress board](#).

On request the arpschuino can be programed with other programs or other address.

-3-Other codes

- arpschuino 6 pwm (leds) : only 6 dimmed output, but in ardware PWM with faster frequency, beter for the LED.
- led pixel : to drive the LED strips« Neopixel » ([watch it here](#))
- arpsensors: to receive data from different sensors (soon)

Find them at the [download](#) section.

-4-Program an arpschuino

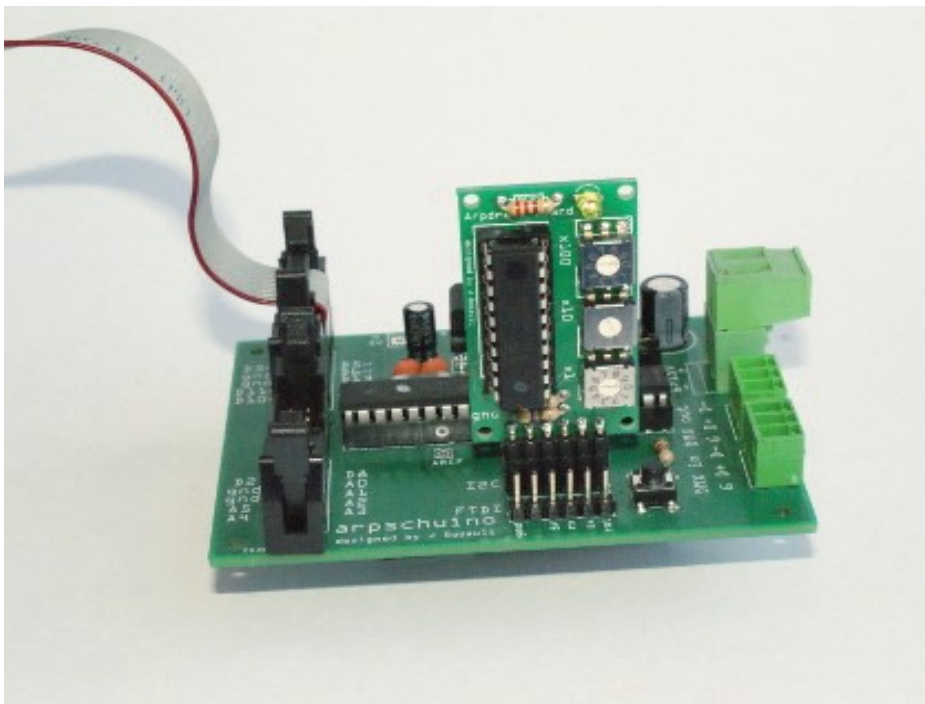
The arpschuino is fully programable, as an Arduino. For this you need an [arduino USB/ TTL](#) or a [FTDI](#) adapter.

You will also need the Arduino software, freely downloadable [here](#).

You can find useful libraries to program the arpschuino on the [download section](#).

-5- Addressing with [arpress board](#)

Change the DMX address of your arpschuino with address board is very simple. After define the address with the 3 encoding wheels, just plug the arpress board on the I²C port and press the reset button on the arpschuino.



After each card LED's blinking, the address is registered. It is stored in the nonvolatile memory, the EEPROM, and will be maintained after the extinction of arpschuino.