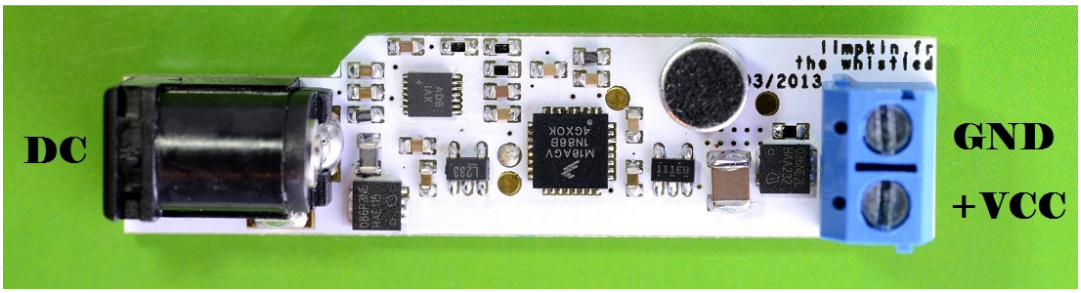
The Whistled - Manual

Thanks for having bought *The Whistled*.

We sincerely hope that you will find this platform intuitive and welcome any feedback you may have.

Connecting *The Whistled*

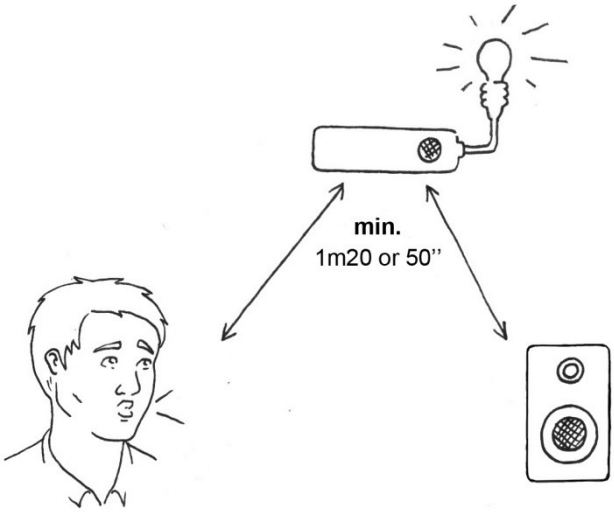
The first steps are fairly simple. Have a look at the picture below:



First, insert each wire of your LED string (or any other device) in the corresponding hole in the terminal block and then tighten the screw into place.
Finally, insert the 2.1/5.5mm DC jack of your power supply to power the system.

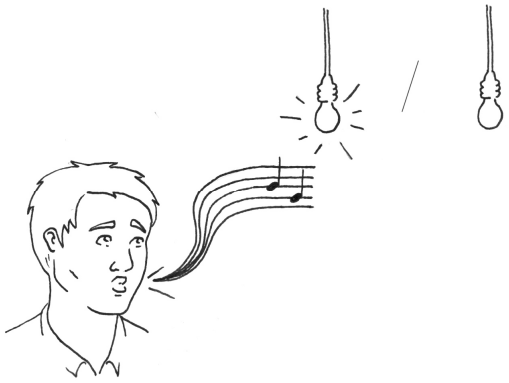
Setting up *The Whistled* in a room

There aren't any special requirements when placing the platform in a room.
However, it is better to set a minimum distance of 1m20 (or 50") between *The Whistled* and any sound emitting device/person to avoid possible false whistle detections:



Switching on/off

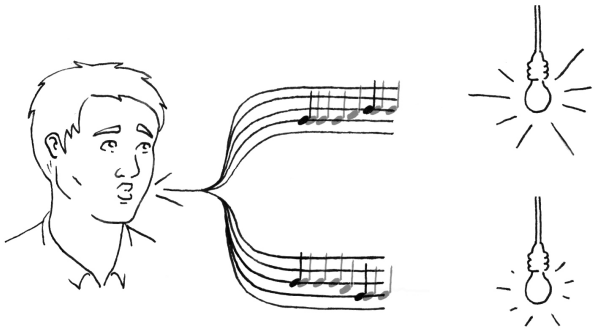
Simply whistle **two distinctive notes** at the platform.



Any whistle sequence will also work, you can **even whistle a melody if you want to**.

Varying the intensity

In the case you connected LEDs to *The Whistled*, you can vary their brightness with the following sequence:
- turn them on (see previous paragraph)
- **whistle a continuous note for 2 or 3 seconds, then whistle higher or lower:**

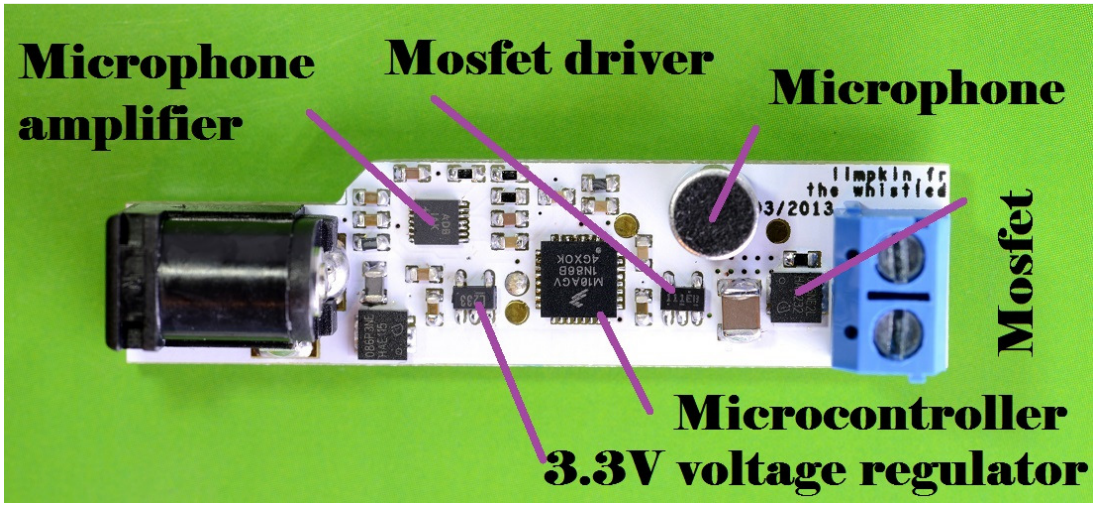


Technical specs

Here are the technical specifications of *The Whistled*
- 55x13mm board
- 4.5V to 18V DC input
- max 5A current
- 16 bits PWM at ~100ns per tick
- reverse input polarity protection
- ESD protected input and outputs

If you need any other technical detail or source file, please visit our website **www.limpkin.fr** or contact us directly at limpkin@limpkin.fr for other enquiries.

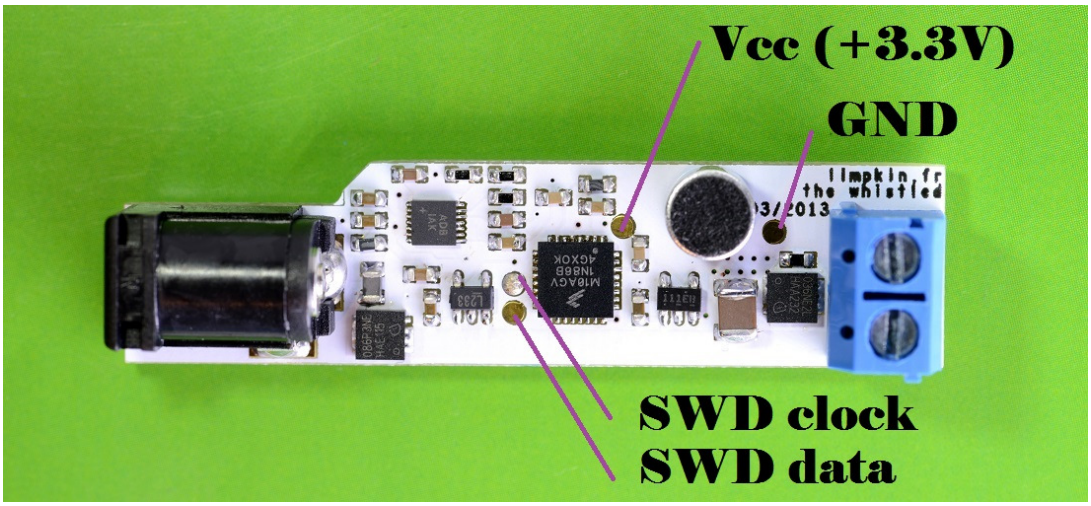
Advanced technical details



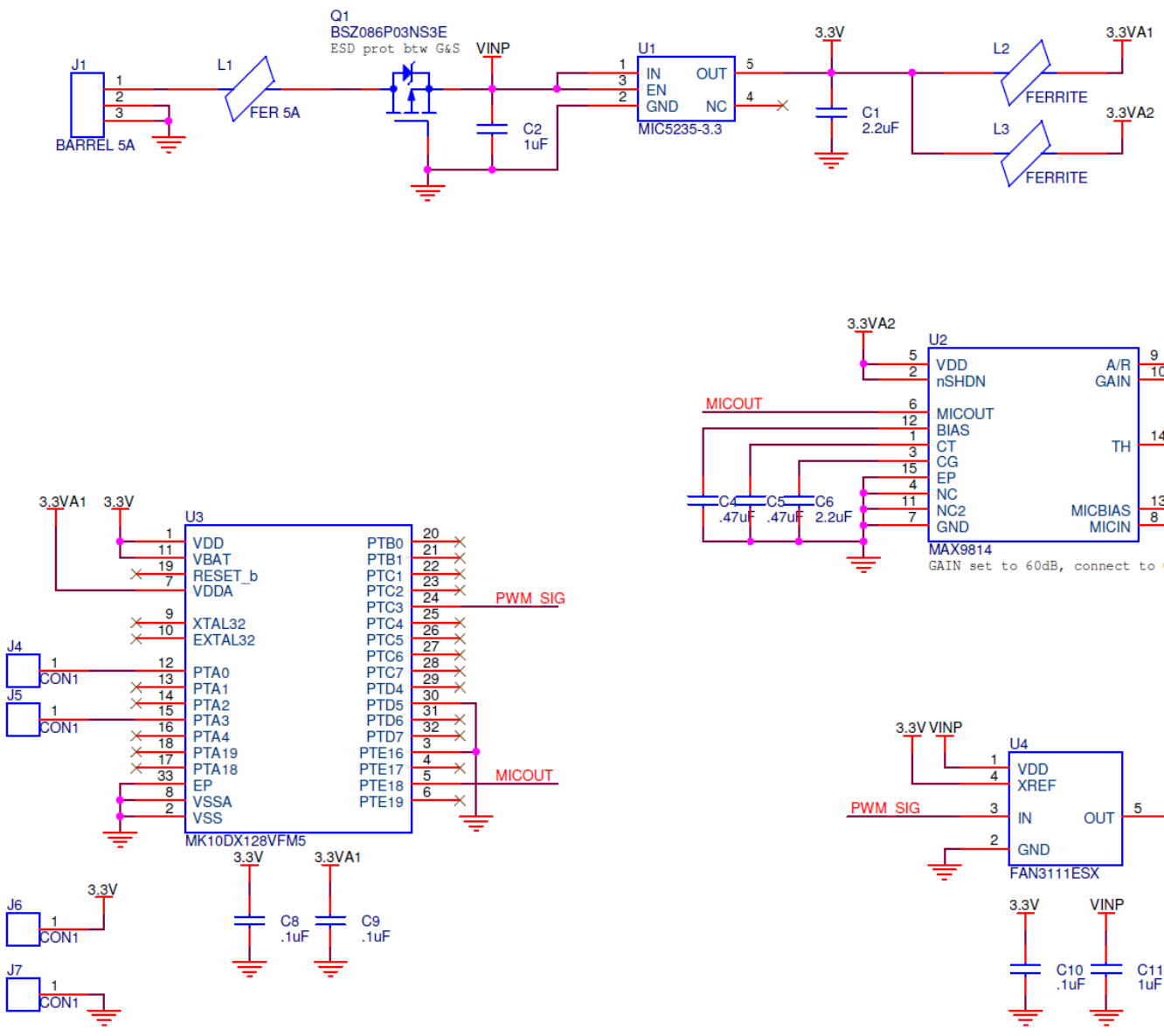
The Whistled is an open hardware project.

All the files required to reproduce this work can be directly downloaded from our website www.limpkin.fr

The microcontroller on the platform you received isn't write protected, so you can reprogram it with a SWD programmer using these pads:



A code template is also available on our website to get you started.


Q1
BSZ086P03NS3E
ESD prot btw G&S
VINP
J1
BARREL 5A
L1
FER 5A
U1
IN
EN
GND
OUT
NC
MIC5235-3.3
C2
1uF
3.3V
C1
2.2uF
L2
FERRITE
L3
FERRITE
3.3VA1
3.3VA2
U3
VDD
VBAT
RESET_b
VDDA
XTAL32
EXTAL32
PTA0
PTA1
PTA2
PTA3
PTA4
PTA19
PTA18
EP
VSSA
VSS
PTB0
PTB1
PTC1
PTC2
PTC3
PTC4
PTC5
PTC6
PTC7
PTD4
PTD5
PTD6
PTD7
PTE16
PTE17
PTE18
PTE19
PWM_SIG
MICOUT
MK10DX128VFM5
J4
J5
J6
J7
CON1
C8
.1uF
C9
.1uF
U2
VDD
nSHDN
MICOUT
BIAS
CT
CG
EP
NC
NC2
GND
A/R
GAIN
TH
MICBIAS
MICIN
MAX9814
GAIN set to 60dB, connect to GND for 50dB
C4
.47uF
C5
.47uF
C6
2.2uF
C3
1uF
R1
100k
R2
100k
R3
2.2k
C7
.1uF
MK1
MIC
U4
VDD
XREF
IN
OUT
GND
FAN3111ESX
Q2
BSZ036NE2LS
D1
TVS
J8
CON2
C10
.1uF
C11
1uF
C12
22uF