



Hackathon Resources
SXSW 2015

Developer Profiles



Juan Pedro
Bolívar Puente

Core Skill Set

- C++ and Python metaprogramming
- functional programming
- free software with capital F

Music Taste

Techno from the dungeons, breaks from the industrial revolution

Hack ideas

Hypercube session view,
Generative music based on linear constraints



Ian Hobson

Core Skill Set

- C++
- Max/MSP
- DSP

Music Taste

Electronica, techno, acid, jungle, noise

Hack ideas

Synth that uses hands-free controllers (Leap Motion, Kinect), Evolving MIDI sequencer based on genetic algorithms



Céline Dedaj
(Dev Liaison)

Core Skill Set

- Bringing people together
- Loud wooing
- Bad puns
- Singing

Music Taste

Indietronica, electro/house, trip hop



Neil Burdock
(Dev Manager)

Core Skill Set

- Javascript/Web Stacks
- Basic Max
- Getting shit done

Music Taste

Techno. Punk. Technopunk.

Previous Hacks

MIDIHack

[Vimeo](#)

[Website](#)

[Pictures](#)

[Twitter Pics](#)



Look Mum, No Hands (Ableton Winner)

[Read more](#)

[Github](#)

Dropworks

[Read more](#)

[Twitter](#)

Beatflux

[Read more](#)



ADE 4Dsound

[Vimeo](#)



Resources and Documentation

Ableton Live: No Coding Required

You cannot code, but want to hack something?
Ableton offers many tools that allow you to realise even
rather complex hack ideas without having to write a
single line of code. Here's what you need to know:

Things to prepare before the Hackathon, if you haven't used Ableton Live

1. Install [Ableton Live](#)
2. Install [Max](#) (in order to use existing MFLpatches)
3. Watch "[What is Ableton Live](#)"
4. Watch part 3-6 (or all) of our [Getting Started Videos](#)
5. Start Ableton Live and get familiar with:
 - A. [Session View](#)
 - B. [Midi-Clips](#)

Ableton Live's Toolset to realise your hack idea

[Midi-Clips](#)

[Instrument, Drum & Effect Racks](#)

[Midi and Key Remote Control](#)

[Track Routings and Midi Input/Output](#)

Useful Max-for-Live Devices:

[Max for Live Essentials](#)

[Modular Video Tools for Visuals](#)

[Online library of free MFL-devices](#)

Max-for-Live

Documentation/Tutorials

Live API

Live Object Model

Building Tools

Push Programming

Building-Blocks

Tutorial



The Ableton Live Python API

Disclaimer

The Python API is not officially supported by Ableton. Its API might change in any upgrade, technical support will not answer your problems and its abuse might break your computer or start the Third World War. **We warned you.**

About

The Python API is used by Ableton to implement the logic of MIDI controllers like Push or extensibility features like Max4Live. A lot of people have discovered it and have built amazing hacks around it – and you are welcome to do so too!

Resources

Along side this document you should have been provided a zip file containing a series of resources that should help you in exploring the possibilities of the Python API.

The accompanying package contains:

1. **A Hack_TrackColors Midi remote script** that shows how the Python API can be used to extend Live's functionality and interface with MIDI Hardware:
 - It changes Live's clip-colouring behaviour, such that they match their track colour.
 - It allows you to change the selected track's color using the Launchpad.
2. **A Hack_WebTrackColors web app** written with ClojureScript and Om, that leverages WebMIDI API to talk to the Hack_TrackColors script and replace the Launchpad in the browser!
3. **The RpycHost MIDI remote script** that can be used to connect to Live using the Python Rpyc library.
4. **A Hack_LiveCurses command line Python example app** that talks to Ableton Live using a Rpyc bidirectional connection.

Further Readings

The Live Object Model from the Max4Live documentation

Live 9 MIDI remote script reverse engineering by Julien Bayle

A introduction to the Framework classes by Hanz Petrov

Third Party Hacks

LiveOSC by Liine

PyLive hack on top of LiveOSC by @ideoforms

LiveTelnet control from a Telnet session, by The LiveAPI hack project

Interesting Apps Using It

TangibleX a Reactable-like surface that can be used to play Live-sets

Audiooverdrive a game with dynamic music using Live

Conductr/LiveControl 2/Touchable 2 mobile apps to control Live

About Ableton

Ableton.com/about

Ableton.com/jobs

[@AbletonDev](https://twitter.com/AbletonDev)

