

„Jede hinreichend fortschrittliche Technologie ist von Magie nicht zu unterscheiden.“

Sir Arthur C. Clarke's Drittes Gesetz



Interface Werkstatt Blockseminar || Day One

# Fabian Morón Zirfas

# Fabian



# **Und wer bist du?**

Name, Github Name, Alter, Studiengang,  
Design-Interessen-Felder, Programmiererfahrung  
und ein nicht Design spezifisches Fakt.

# Co-Tutoring

# denglish?

# LW126 Guestnetwork

InterFaceLab

# Die Inhalte

der kommenden Tage

# Day One

Commandline Fu (Under The Hood)  
Package Management  
Kollaboratives Arbeiten (Github)  
Processing Pt. 1  
Geo Data

# Day Two

# Multitouch Processing Pt. 2

# Day Three

Arduino  
Digital IO  
Analog IO  
C2C

# Projekt

# **Ein paar Dinge noch...**

# Eine Werkstatt

**ist eine Werkstatt,**

**ist eine Werkstatt.**

# **Learning by doing!**

# Open Source



# Lizenzen

„Because I did not explicitly indicate a license, I declared an implicit copyright without explaining how others could use my code.“

Jeff Atwood (Coding Horror)

# Programming Literacy

„I also believe programming is important ... in the right context, for some people. But so are a lot of skills. I would no more urge everyone to learn programming than I would urge everyone to learn plumbing.“

[Jeff Atwood \(Coding Horror\) - Please Don't Learn to Code](#)

„I think everybody should learn to code, for one simple reason:  
**knowing how to code is hugely empowering.**“

Sacha Greif - Please Learn To Code

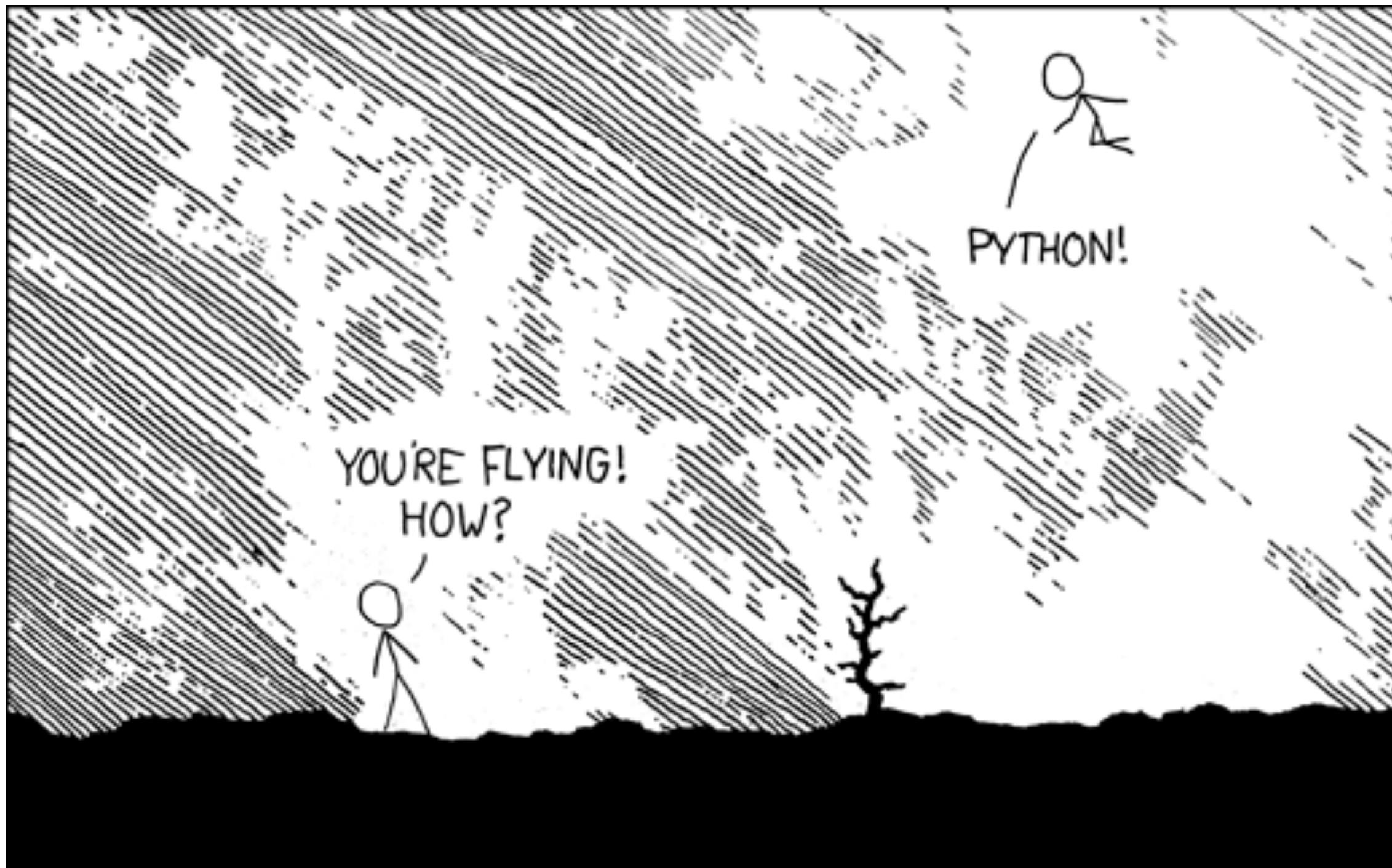
„Although its nonsensical for everyone to learn plumbing, it would never hurt anyone to give it a try. Even if you go away learning how to replace a washer. At least that will be one less leaky tap in the world.“

Coding Ninja - please don't learn to code but give it a try

# Programmiersprachen



```
++++++[>++++[>++>+++>+++>
+<<<<<-]>+> ->>+[<]<-]>>.>---.+++++
+..+++.>>.<-.<.+++,-----,>>+.>++.
```



I LEARNED IT LAST NIGHT! EVERYTHING IS SO SIMPLE!  
/ HELLO WORLD IS JUST  
print "Hello, world!"

I DUNNO...  
DYNAMIC TYPING?  
WHITESPACE?  
COME JOIN US!  
PROGRAMMING IS FUN AGAIN!  
IT'S A WHOLE NEW WORLD UP HERE!  
BUT HOW ARE YOU FLYING?

I JUST TYPED  
import antigravity  
THAT'S IT?  
/ ... I ALSO SAMPLED  
EVERYTHING IN THE  
MEDICINE CABINET  
FOR COMPARISON.  
/ BUT I THINK THIS  
IS THE PYTHON.

# (Programmier-)Sprachen

# Automation

„Mit dem Erlernen einer Computersprache vollzieht sich ein Wandel.  
Es ist der Schritt vom Bediener zu einem Macher von Werkzeugen.“

Fabian Morón Zirfas - Mehr Zeit für Gestaltung

?

# UNDER THE HOOD

```
test — bash — 125x30
└── two
    └── s
        ├── one
        └── two
    └── t
        ├── one
        └── two
    └── u
        ├── one
        └── two
    └── v
        ├── one
        └── two
    └── w
        ├── one
        └── two
    └── x
        ├── one
        └── two
    └── y
        ├── one
        └── two
└── z
    ├── one
    └── two

79 directories, 0 files
Fabians-MacBook-Pro:test icke$ spark 10,20,30,40,50
███████████
Fabians-MacBook-Pro:test icke$
```

/Applications/Utilities/Terminal.app

[WIN]: cmd

# telnet

[WIN & MAC]: telnet towel.blinkenlights.nl

[WIN & MAC]: cd [DIRECTORY]

[WIN & MAC]: cd Desktop

[WIN & MAC]: cd ..

[MAC]: pwd

[WIN]: echo %cd%

[MAC]: ls

[WIN]: dir

[MAC]: ls -d /\*

[WIN]: dir /D

[MAC]: ls -1a

[MAC]: man [COMMAND]

[MAC]: man ls

[MAC]: ls -h

[WIN]: [COMMAND] /?

[WIN]: dir /?

[WIN & MAC]: mkdir [DIRECTORY NAME]

[WIN & MAC]: mkdir test

[WIN & MAC]: mkdir "my test"

[MAC]: nano [FILENAME]

[WIN]: notepad [FILENAME]

[MAC]: touch {a..z}.txt

[WIN & MAC]: echo "[STRING]"

[WIN & MAC]: > oder >>

[MAC]: ls > test.txt

[WIN]: dir > test.txt

# [MAC]: history

[MAC]: clear

[WIN]: cls

[MAC]: open .

[WIN]: explorer .

[MAC]: open [FILENAME]

[WIN]: start [FILENAME]

[MAC]:open -a "/Applications/Safari.app" [FNAME]

[MAC]:open -a "/Applications/Safari.app" [FNAME]

# hands on

Finde mehr über die Kommando  
Zeile heraus

z.B. Wie lösche ich Dateien?

z.B. Wie lösche ich Ordner?

z.B. Wie bewege ich Dateien?

z.B. Wie kopiere ich Dateien?

z.B. Was sind Wildcards?

z.B. Wie erzeuge ich Ordner mit  
Unterordnern?

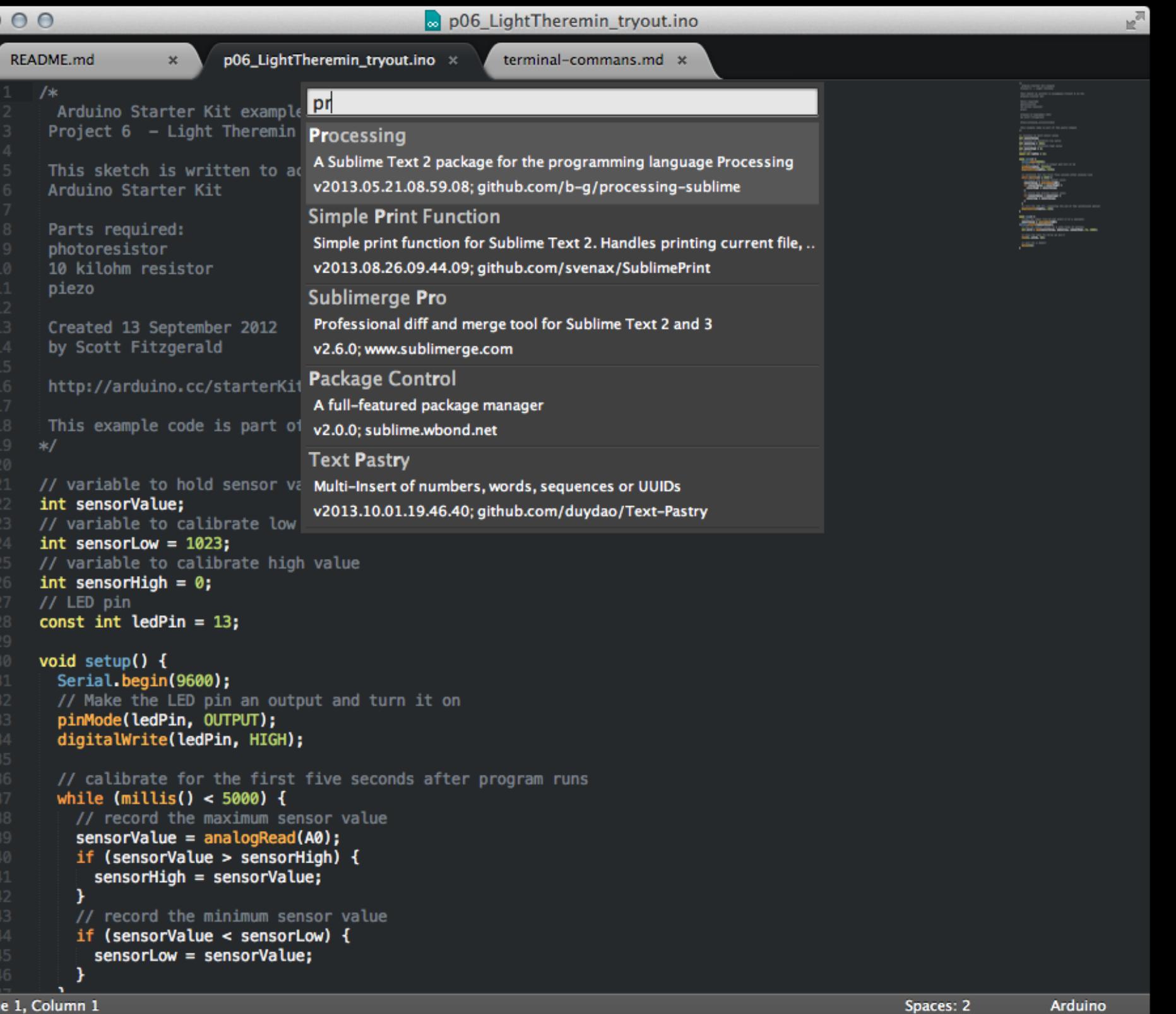
z.B. Was ist .bash\_profile?

cat? top? arp -a?

?

# **What the hell is package managment?**

and why do I need it?



A screenshot of the Sublime Text 2 interface. The title bar shows the file "p06\_LightTheremin\_tryout.ino". The left panel displays an Arduino sketch for a Light Theremin project. The right panel shows the Sublime Package Control interface with a search bar containing "pr". A list of packages is displayed, including:

- Processing
- Simple Print Function
- Sublimerge Pro
- Package Control
- Text Pastry

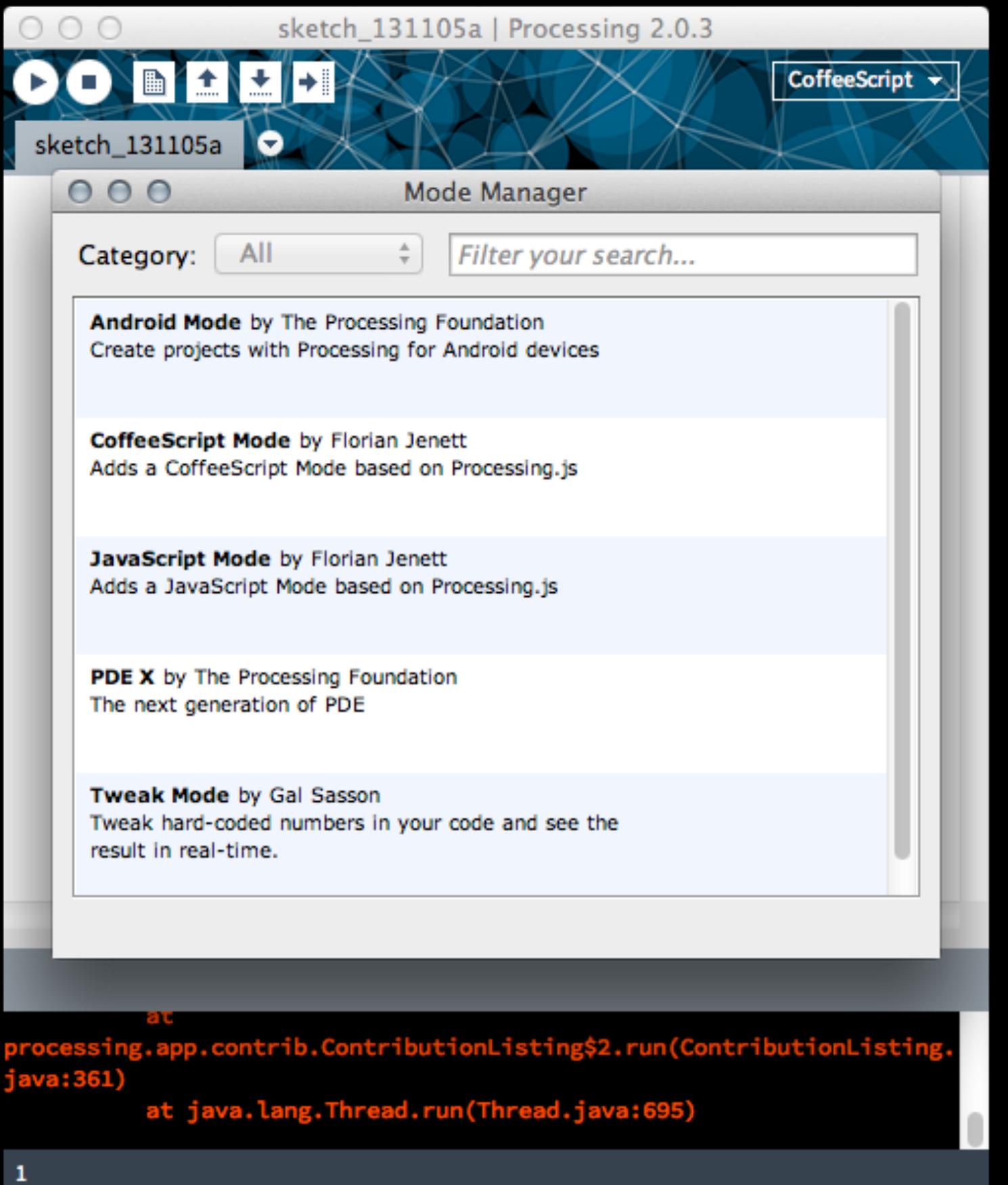
The Arduino status bar at the bottom indicates "Line 1, Column 1", "Spaces: 2", and "Arduino".

```
/*
  Arduino Starter Kit example
  Project 6 - Light Theremin
  This sketch is written to accompany the
  Arduino Starter Kit
  Parts required:
  photoresistor
  10 kilohm resistor
  piezo
  Created 13 September 2012
  by Scott Fitzgerald
  http://arduino.cc/starterKit
  This example code is part of the
  Arduino Starter Kit
  */

// variable to hold sensor value
int sensorValue;
// variable to calibrate low value
int sensorLow = 1023;
// variable to calibrate high value
int sensorHigh = 0;
// LED pin
const int ledPin = 13;

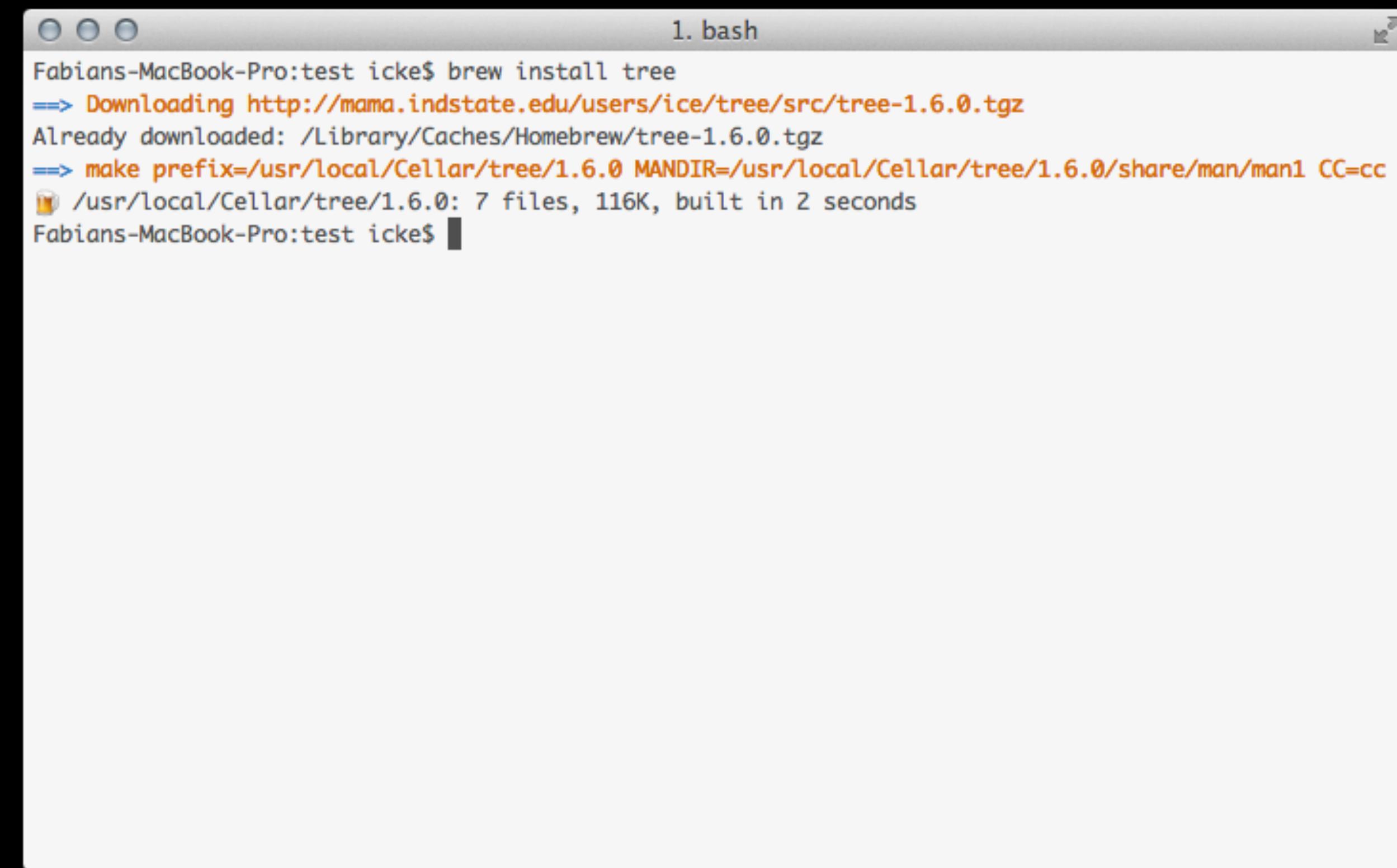
void setup() {
  Serial.begin(9600);
  // Make the LED pin an output and turn it on
  pinMode(ledPin, OUTPUT);
  digitalWrite(ledPin, HIGH);

  // calibrate for the first five seconds after program runs
  while (millis() < 5000) {
    // record the maximum sensor value
    sensorValue = analogRead(A0);
    if (sensorValue > sensorHigh) {
      sensorHigh = sensorValue;
    }
    // record the minimum sensor value
    if (sensorValue < sensorLow) {
      sensorLow = sensorValue;
    }
  }
}
```



```
1. bash
npm http GET https://registry.npmjs.org/minimatch
npm http GET https://registry.npmjs.org/nopt
npm http GET https://registry.npmjs.org/rimraf
npm http GET https://registry.npmjs.org/lodash
npm http GET https://registry.npmjs.org/underscore.string
npm http GET https://registry.npmjs.org/which
npm http GET https://registry.npmjs.org/js-yaml
npm http 200 https://registry.npmjs.org/grunt-lib-contrib
npm http GET https://registry.npmjs.org/grunt-lib-contrib/-/grunt-lib-contrib-0.6.1.tgz
npm http 200 https://registry.npmjs.org/nodeunit
npm http GET https://registry.npmjs.org/nodeunit/-/nodeunit-0.8.2.tgz
npm http 200 https://registry.npmjs.org/jshint
npm http GET https://registry.npmjs.org/jshint/-/jshint-2.1.11.tgz
npm http 200 https://registry.npmjs.org/coffee-script
npm http GET https://registry.npmjs.org/coffee-script/-/coffee-script-1.3.3.tgz
npm http 200 https://registry.npmjs.org/colors
npm http GET https://registry.npmjs.org/colors/-/colors-0.6.2.tgz
npm http 200 https://registry.npmjs.org/dateformat/1.0.2-1.2.3
npm http GET https://registry.npmjs.org/dateformat/-/dateformat-1.0.2-1.2.3.tgz
npm http 200 https://registry.npmjs.org/uglify-js
npm http 200 https://registry.npmjs.org/eventemitter2
npm http 200 https://registry.npmjs.org/findup-sync
npm http GET https://registry.npmjs.org/uglify-js/-/uglify-js-2.4.2.tgz
npm http GET https://registry.npmjs.org/eventemitter2/-/eventemitter2-0.4.13.tgz
npm http GET https://registry.npmjs.org/findup-sync/-/findup-sync-0.1.2.tgz
```

npm für [nodejs.org](http://nodejs.org)



```
Fabians-MacBook-Pro:test icke$ brew install tree
==> Downloading http://mama.indstate.edu/users/ice/tree/src/tree-1.6.0.tgz
Already downloaded: /Library/Caches/Homebrew/tree-1.6.0.tgz
==> make prefix=/usr/local/Cellar/tree/1.6.0 MANDIR=/usr/local/Cellar/tree/1.6.0/share/man/man1 CC=cc
🍺 /usr/local/Cellar/tree/1.6.0: 7 files, 116K, built in 2 seconds
Fabians-MacBook-Pro:test icke$
```

brew.sh

[MAC]: xcode-select --install

**brew.sh**

[MAC]: ruby -e "\$(curl -fsSL https://raw.githubusercontent.com/mxcl/homebrew/go)"

[MAC]: brew install tree

[MAC]: tree

[MAC]: brew install spark

[MAC]: spark 10 20 30 40 50 50 50 60



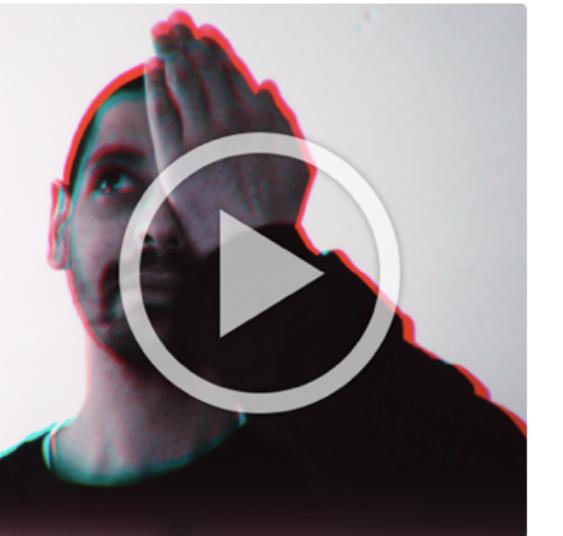
[MAC]: brew install webkit2png

[MAC]: webkit2png <http://fabianmoronzirfas.me>

# Hello

my name is Fabian Morón Zirfas a.k.a.  
fabiantheblind. I am a freelance motiongrapher  
and coder living in Berlin who occasionally does  
stuff that involves things.

Have a look at my showreel below or browse  
through my projects. If you'd like to contact me  
use one of the [social networks at the bottom of  
each page](#) or write me an [email](#). Oh and there is  
also that boring [legal stuff](#).



## Motion Graphics

Since I was a child I dreamed of creating animations. I loved those Saturday mornings in front of the television spending hours and hours watching cartoons. When I started studying at the [FHP](#) it was clear that a big focus would be creating animations. I always tried, sometimes too hard, to find a solution where I could use and improve my skills in this field. I'm still not at the end of that learning process but after 8 years fiddling with After Effects I can say I have a solid knowledge in creating graphics in motion. Have a look at my [favorite moving pictures](#).

## Coding Graphics

I had my first programming experience at the FHP with Flash and Quartz Composer. None of them managed to kindle my love for code. But then came Processing. After the first experiments I began to understand the power of programming. While working on layout jobs and after hours and hours clicking my life away I experimented with JavaScript inside Adobe applications. It became the topic of my Bachelor Thesis and is a powerful weapon against repetitive tasks. Have a look at my favorite [programming projects](#).

Are you in a hurry? Grab the vita ([DE](#)) or ([EN](#)).

This site is generated with [gh-pages](#), [jekyll](#) and [twitter bootstrap](#) by fabiantheblind.  
Get the source files [over here](#). Oh. I almost forgot that boring legal stuff called [impressum](#).



# [MAC]: brew home hub

# hands on

z.b. finde ein interessantes  
Tool mit homebrew

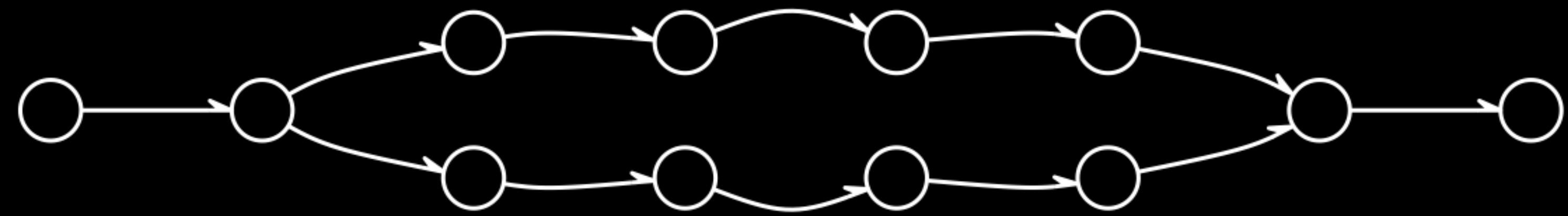
z.b. Installiere/deinstalliere  
ein Tool mit homebrew

?

# Kollaboratives Arbeiten

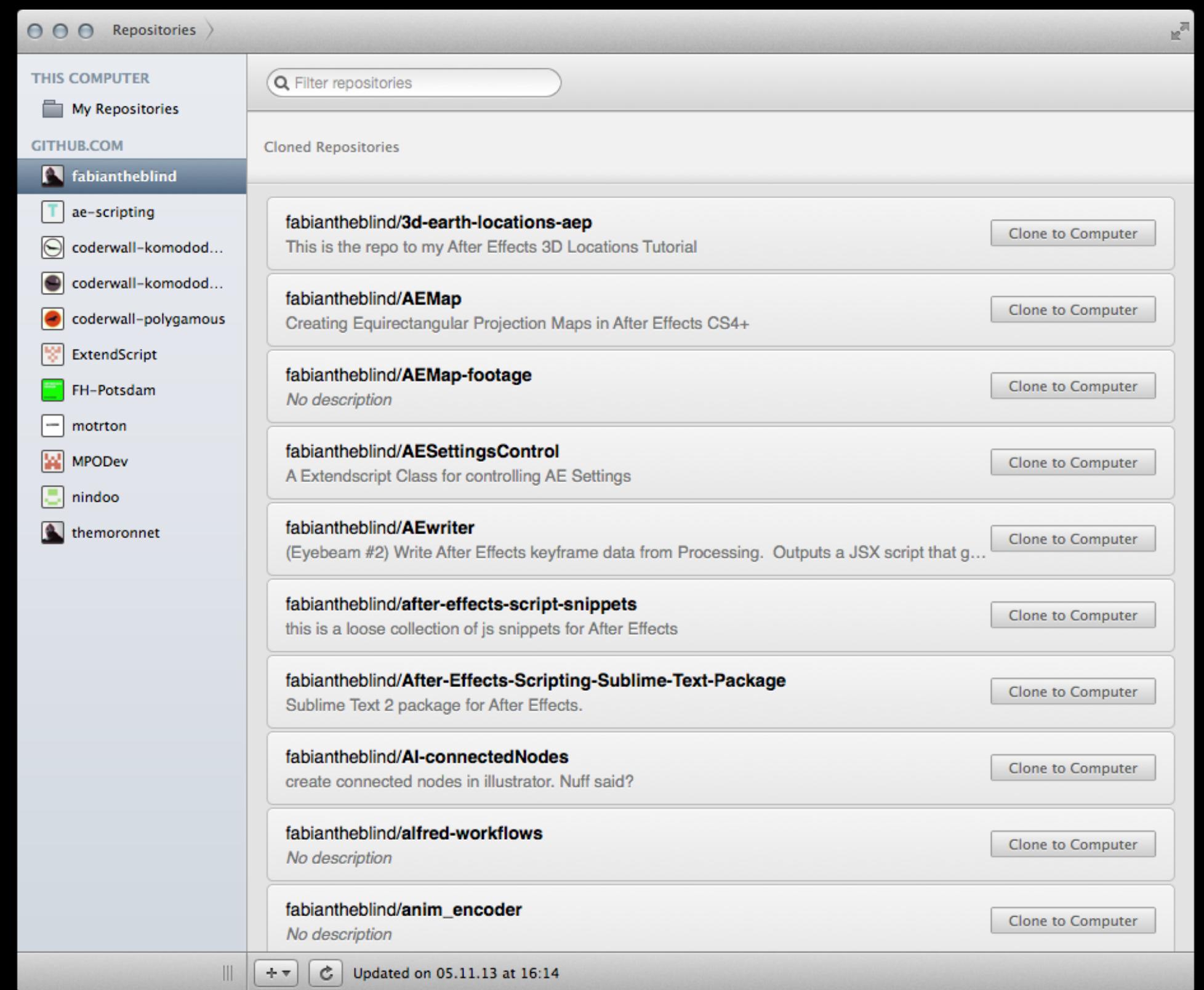
**git**

github.com





[try.github.io](https://try.github.io)



[mac.github.com](https://mac.github.com) or [windows.github.com](https://windows.github.com)

**processing.org**

**processing.org**

# Processing Pt. 1