

LICHTSTEUERUNGSAUTOMATISIERUNG

DAT Projekt

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January 18, 2016

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LICHTSTEUERUNG, AUTOMATISIERBAR PER CLI

INTERNET of THINGS



- Alltägliche Geräte
- Zugang zu IP-Netz
- Unterstützung des Menschen

*Das Ziel des **Internets der Dinge** ist es, die Informationslücke zwischen der realen und virtuellen Welt zu minimieren.*

– Mattern, F. (2005), Das Internet der Dinge



Seasonally Affected

@sadserver

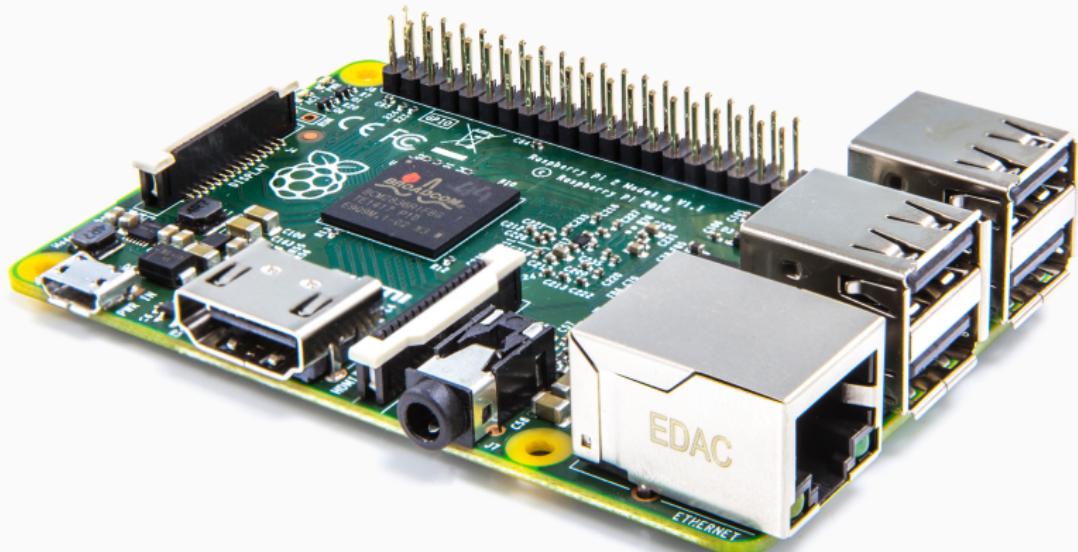
Internet of Things?

SPOILER ALERT

That's what the internet is.

HARDWARE

HARDWARE - RASPBERRY PI 2



- Universell einsetzbar
- Sehr gutes Preis/Leistungs-Verhältnis
- Umfangreicher Support durch Community
- Große Basis unterstützter Software
- Einfach in der Handhabung

HARDWARE - RASPBERRY PI 2 - SPECS

| | |
|----------------|---------------|
| CPU | ARM Cortex-A7 |
| CPU-Kerne | 4 |
| CPU-Takt | 900 MHz |
| RAM | 1 GB |
| Stromverbrauch | max. 4 W |
| Preis | ~40€ |

HARDWARE - RASPBEETM



HARDWARE - RASPBEER - SPECS

Gimme those specs

HARDWARE

- Philips Hue LED

SOFTWARE

SOFTWARE

- GCFFlasher
- deCONZ
 - Desktop Applikation
 - Web Applikation
- CLI

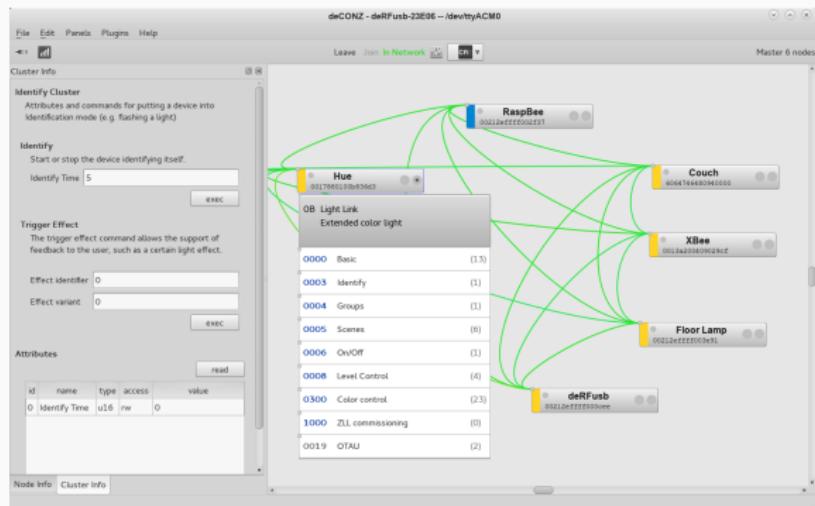
SOFTWARE - GCFFLASHER

- Firmware für RaspBee
- von Dresden Elektronik zur Verfügung gestellt
- zum Flashen und Resetten des RaspBees



SOFTWARE - DECONZ - DESKTOP APPLICATION

Hardwarenahe Steuerung der ZigBee-Nodes



SOFTWARE - DECONZ - WEB APPLIKATION

Erstellung von Gruppen, Szenen über Rest-API

The screenshot shows the Deconz web interface with two main sections: "Living Room" and "Office".

Living Room:

- Couch: 42% (Lightbulb icon)
- Floor Lamp: 79% (Lightbulb icon)
- Hue: 100% (Lightbulb icon)

Control buttons for the group include: on, off, tv, reading, warm light, and a three-dot menu.

Office:

- Cell: 62% (Lightbulb icon)
- Window right: 67% (Lightbulb icon)
- Window left: 36% (Lightbulb icon)
- Desk: 24% (Lightbulb icon)

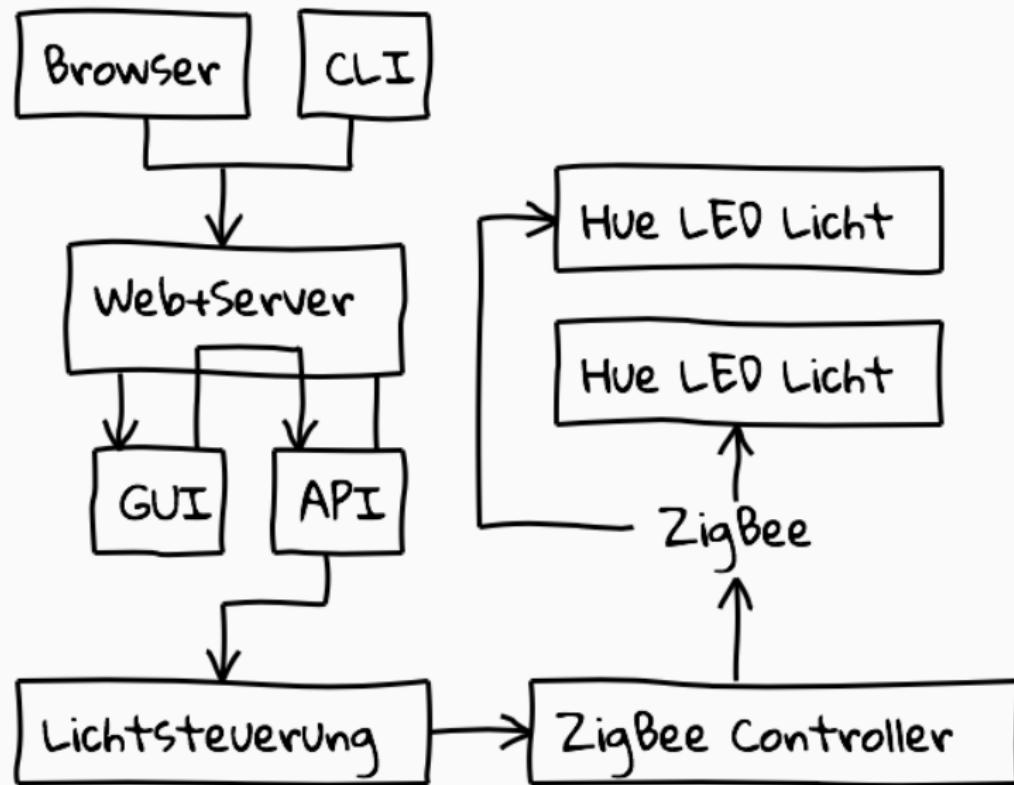
Control buttons for the group include: on, off, working, break, and a three-dot menu.

SOFTWARE - CLI - LOLO

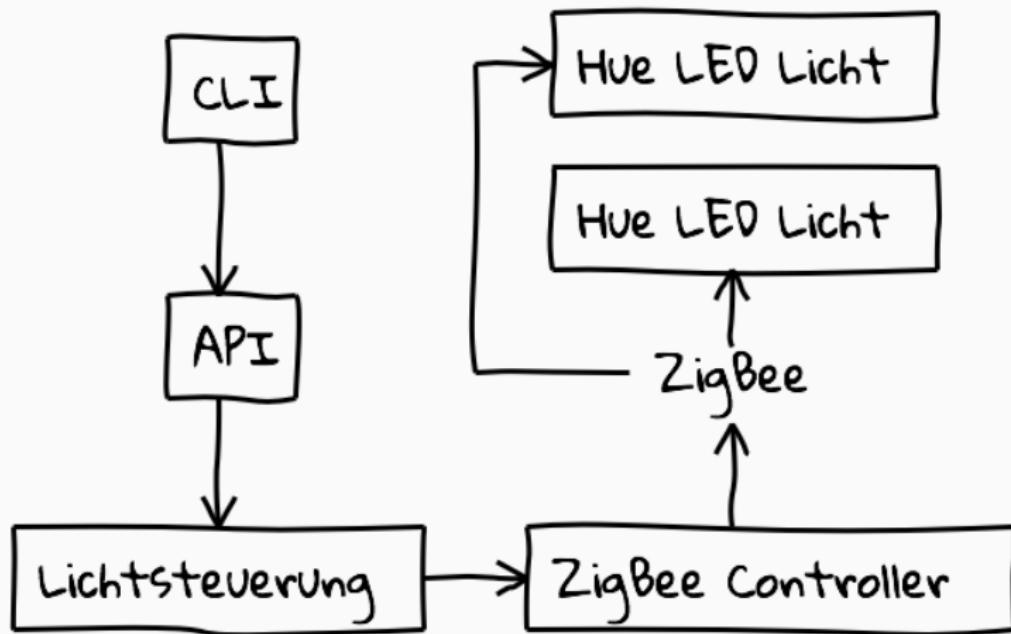
- Command-Line-Interface
- Ruby
- clamp
- rest-client
- nutzt deCONZ Rest-API

WAS WIR GEMACHT HABEN

PLAN - IDEE



PLAN - REALITÄT



SICHERHEITSASPEKTE

DEMO TIME!

Fragen?

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- Internet of Things (Folie 3):
<http://brillency.com/tag/internet-of-things/>
- SPOILER ALERT (Folie 5):
<https://twitter.com/sadserver/status/621382996323536896>
- RPI2 (Folie 7):
<https://www.raspberrypi.org/blog/raspberry-pi-2-on-sale/>
- RaspBee (Folie 10):
<https://www.conrad.de/de/raspbee-1369408.html>