

Workshop proposal Gluon

Jerry Galle, general introduction and exploration of his work (10 minutes).

KNOW-phase

How do the tools and platforms we work with shape the things we create? How do creative and computational ideas transform across media, and what does it mean to make projects with data, hardware or for the internet? In this course, students will use software, hardware and existing scripts adjustable to their individual projects. This is a beginner low level class: all presented materials are plug and play and can be adjusted according to the needs of the projects developed during the REFLECT- & ACT-phase.

1. WHERE TO START?

Underneath is a list of inspiring artists. As part of the introduction 2 artists from this list are discussed on the basis of example projects. It is advised that the students explore the remaining links on their own time to get a better understanding of critical thinking and making and thus look into possible contexts for their future proposals during the REFLECT- & ACT-phases. This 2x artist intro will take about 40 minutes.

A guideline for creating projects in 3 phases:

The 3 stages of creating a project:

*The **first phase** starts with the research phase in which the concept of the project is developed, as well as the required knowledge gatherings and the design chosen. In **the second phase**, the development phase, the hardware and software are developed and tested. In the **third and final phase**, the implementation phase, the artwork is installed in its environment. A different kind of documentation is important in every phase. In this way the project can be reproduced or malfunctions solved. Media art often comes from collaboration, whereby the aforementioned documentation is of great importance.*

- [critical engineering](#)
- [Floor Vanden Berghe \(student\)](#)
- [julian oliver](#)
- [James Bridle](#)
- [The Yes Men & The Yes Men Fix the World Trailer](#)
- [XNET & video of a talk with it's founding member Simona Levi](#)
- [Constant Dullaart](#)
- [the revolvinginternet](#)
- [Amalia Ulman](#)
- [Morehshin Allayari](#)
- [additivism manifesto](#)
- [Olia Lialina](#)
- [Paolo Cirio](#)
- [Matthew-Plummer Fernandez](#)
- [JODI](#)
- [Metahaven](#)
- [eva & franco mattes](#)

- [Heath Bunting](#) & <https://www.youtube.com/watch?v=L1J9Jet0M2E>
- [fat lab](#)
- [ubermorgen](#)
- [mediagruppe bitnik](#)
- [leo selvaggios](#)
- [manu luksch](#)
- [wachter Jud](#)
- [Jonathan puckey](#) with [no home like place](#)
- [Lauren Lee McCarthy](#)
- [tactical technology collective](#)
- [exposing the invisible](#)
- [Simon Denny](#)
- [Marisa Olson](#)
- [Critical Art Ensemble](#)
- [future farmers](#)

2. HOW & WHAT WITH?

A quick & dirty introduction with accompanying demonstrations will be given about the used hardware, software and programming languages.

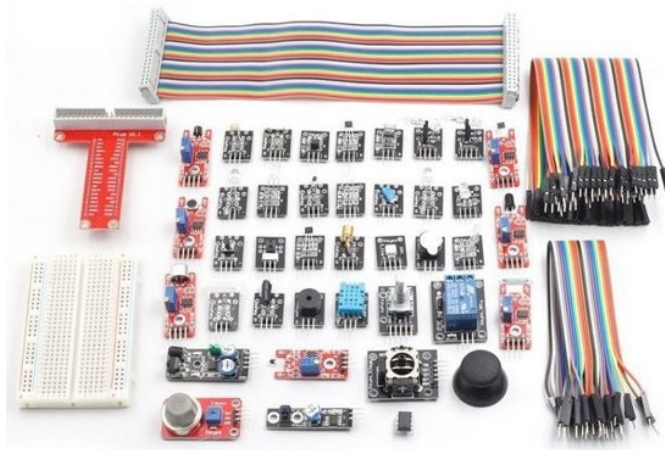
Used hardware during the classes other than usual gear (like laptops, screens, etc.):

Raspberry PI: A quick introduction will familiarize you with the Raspberry PI and more generally command lines in a Linux environment, writing and executing simple Python scripts on this tiny computer.

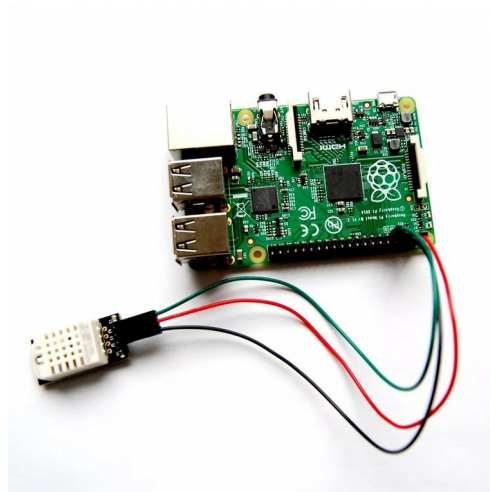


[Raspberry Pi](#)

Sensors: we'll explore a range of sensors, their use, meaning and how to connect them to the Raspberry PI to retrieve data.



Sensor pack



Humidity sensor attached to pi

Dobot Magician: DOBOT Magician is a multifunctional desktop robotic arm for practical training and education.



[Dobot robot](#)

3. DO IT (with this)

Demonstrated code and software during the classes:

All scripts presented are ready to use. If needed these scripts can be altered depending on available time and individual level of expertise of the participant.

Python is a relatively easy scripting language. Examples of Python scripts will be used to utilize the Raspberry Pi and to get and process data.

JavaScript will be used to scrape data online and show the possibilities of working and creating online.

P5 is a JavaScript library that makes it easy to interact with the browser and online content such as text, video, webcam and sound.

ML5 is a friendly machine learning (AI) tool for the web. Developing ml5 is not just about developing machine learning software, it is about making machine learning approachable for a broad audience of artists, creative coders, and students. The library provides access to machine learning algorithms and models in the browser, building on top of TensorFlow.js with no other external dependencies.

RunwayML is an online app to bring the power of artificial intelligence to creative projects with an intuitive and simple visual interface.

Chatbot: RiveScript is a simple scripting language for chatbots with a friendly, easy to learn syntax. Either online or locally on the Raspberry PI.

Try RiveScript Online

With this page you can try RiveScript directly from your web browser! Simply type in some RiveScript code into the text area below and click the "Execute" button to test your code live inside your browser! You can also use (browser-side) JavaScript and [CoffeeScript](#) object macros.

If you need help, [view the help page](#).

Want to share your code snippets? Try the new [RiveScript Playground](#) and get access to better debugging tools and the ability to share your code with others.

RiveScript-JS version 2.0.0

Templates:

[▶ Execute/Test Script](#)

```
// This is the simple trigger again
+ hello bot    // What the human says
- Hello human! // How the bot responds
```

Rivescript example

More examples of apps, content and software to be explored:

scrapy: <https://scrapy.org/>

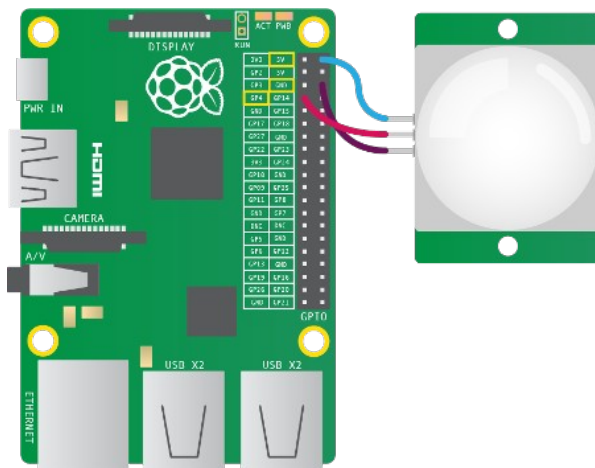
FakeApp: <https://www.malavida.com/en/soft/fakeapp/>

Awesome public datasets: <https://github.com/theBlackBoxSociety/awesome-public-datasets>

Using API's: [example](#), [example 2](#)

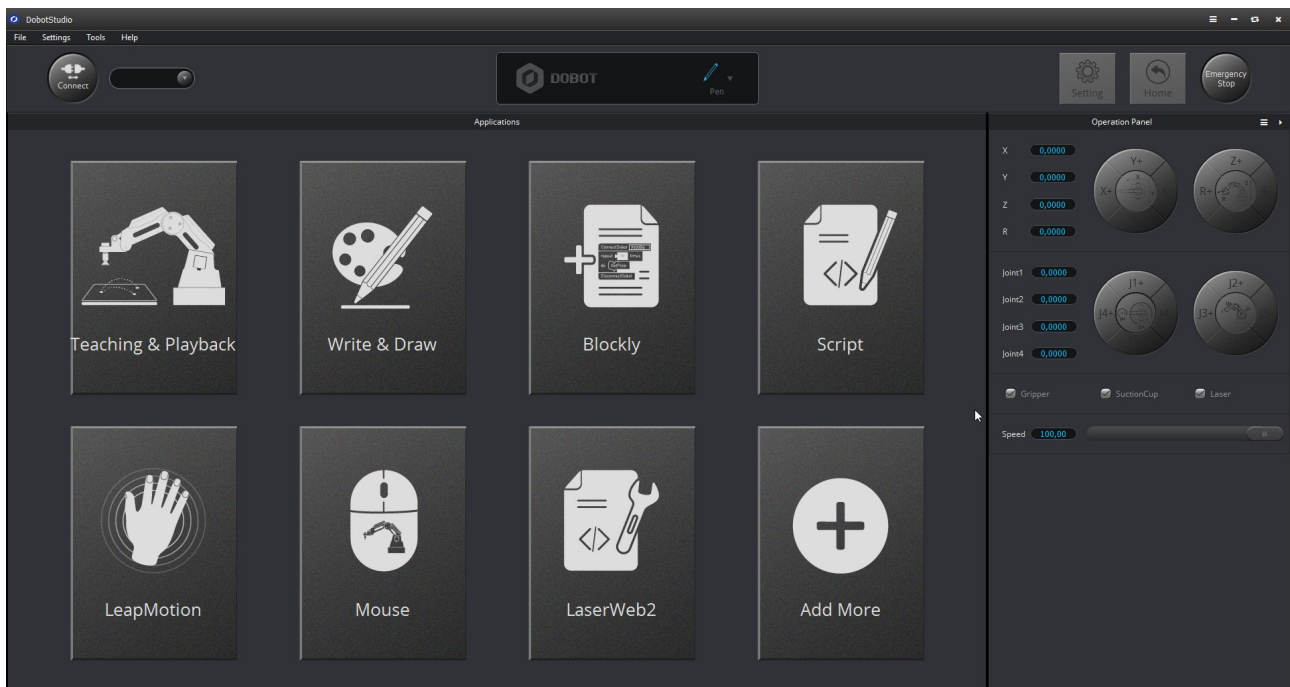
VPN: <https://riseup.net/en/vpn#download-riseupvpn>

Scripts: [sensors](#), [weather data](#), [image data](#)



Sensor setup raspberry pi

Dobot Software: [Magician Studio v1.7.1](#)



Dobot software interface (Windows)

REFLECT-phase

After the KNOW-phase, during the same week, the participants will define an occurring problem (cfr the data measuring). After measuring, analyzing and comparing, they will be able to define a problematic situation. Hence, they will prepare a well-researched problem case with specific real-life data. Thereafter, they will prepare a first concept with solutions, by applying the digital technology tools creatively.

Critical thinking:

Think, reflect, hack and play with the different voices from the different fields of change of our society: that is technology, ecology, economy, politics, etc. We won't focus on innovation in this workshop, but on transition. Critique, critical thinking and dialogue are at least as important as creativity, as well as action compared to reflection and representation. The workshop encourages peer-learning (learning from each other) and co-creating (creating together).

A link will be provided to download all the scripts and content that could be possible starting points for projects.

ACT-phase

After the week @ school (KNOW & REFLECT), the group will continue the trajet in a project week or trajet, where they will ACT, aka develop, design and produce the prototypes that will function as solutions for the problem-case.