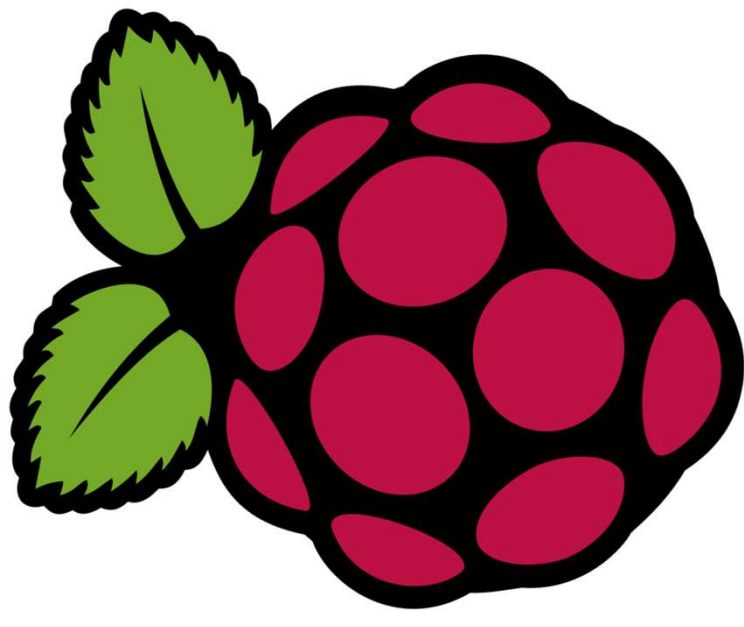


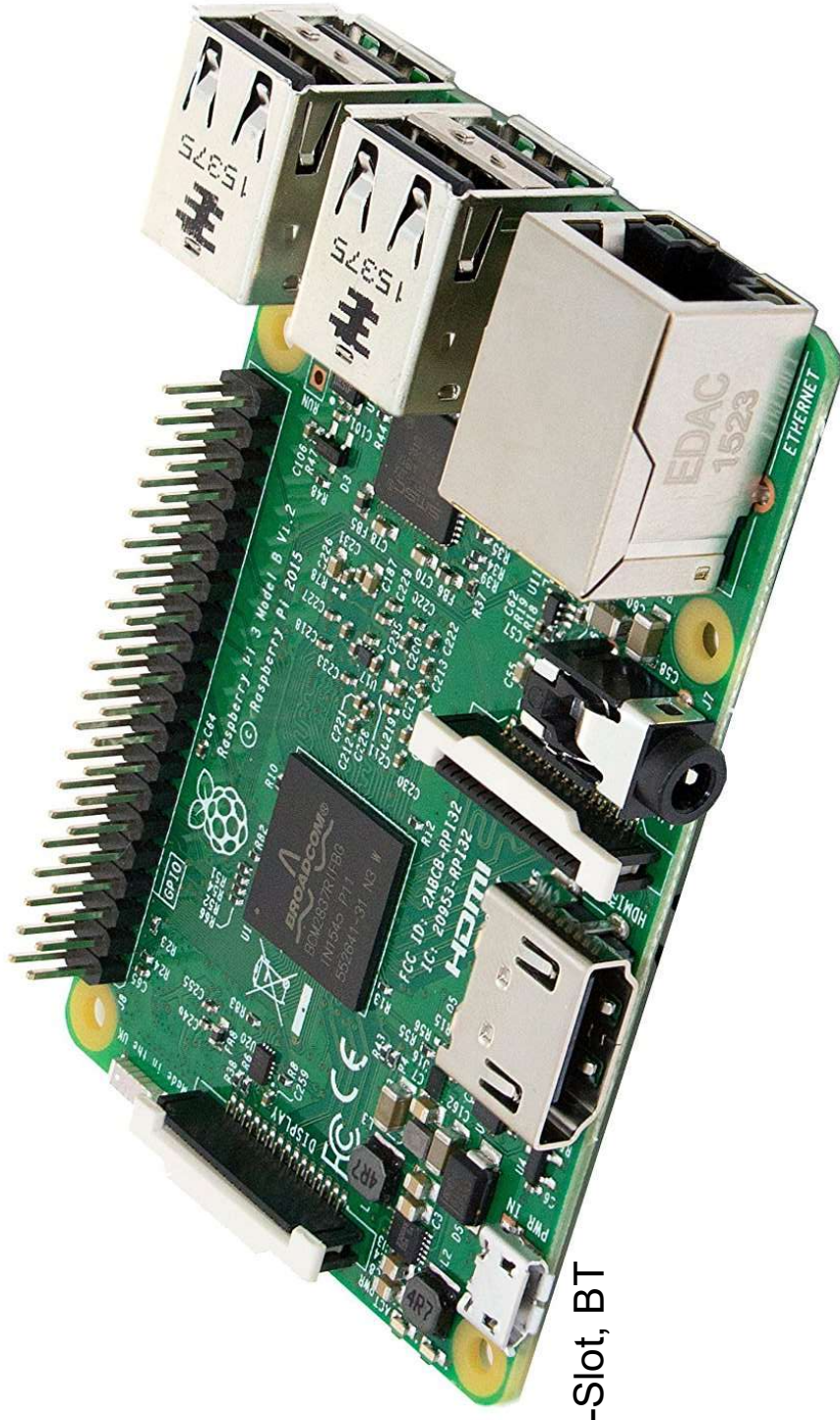
Raspberry Pi

BYOD



Raspberry Pi 3 Model B

- Preis: 35 €
- Ausstattung:
 - CPU-Takt: 1200 MHz
 - 1024 MB RAM
 - 4 USB-Anschlüsse
 - HDMI-Anschluss
 - LAN-Anschluss
 - WiFi-Anschluss
 - Audio-Anschluss
 - Schnittstelle/n: microSD-Slot, BT



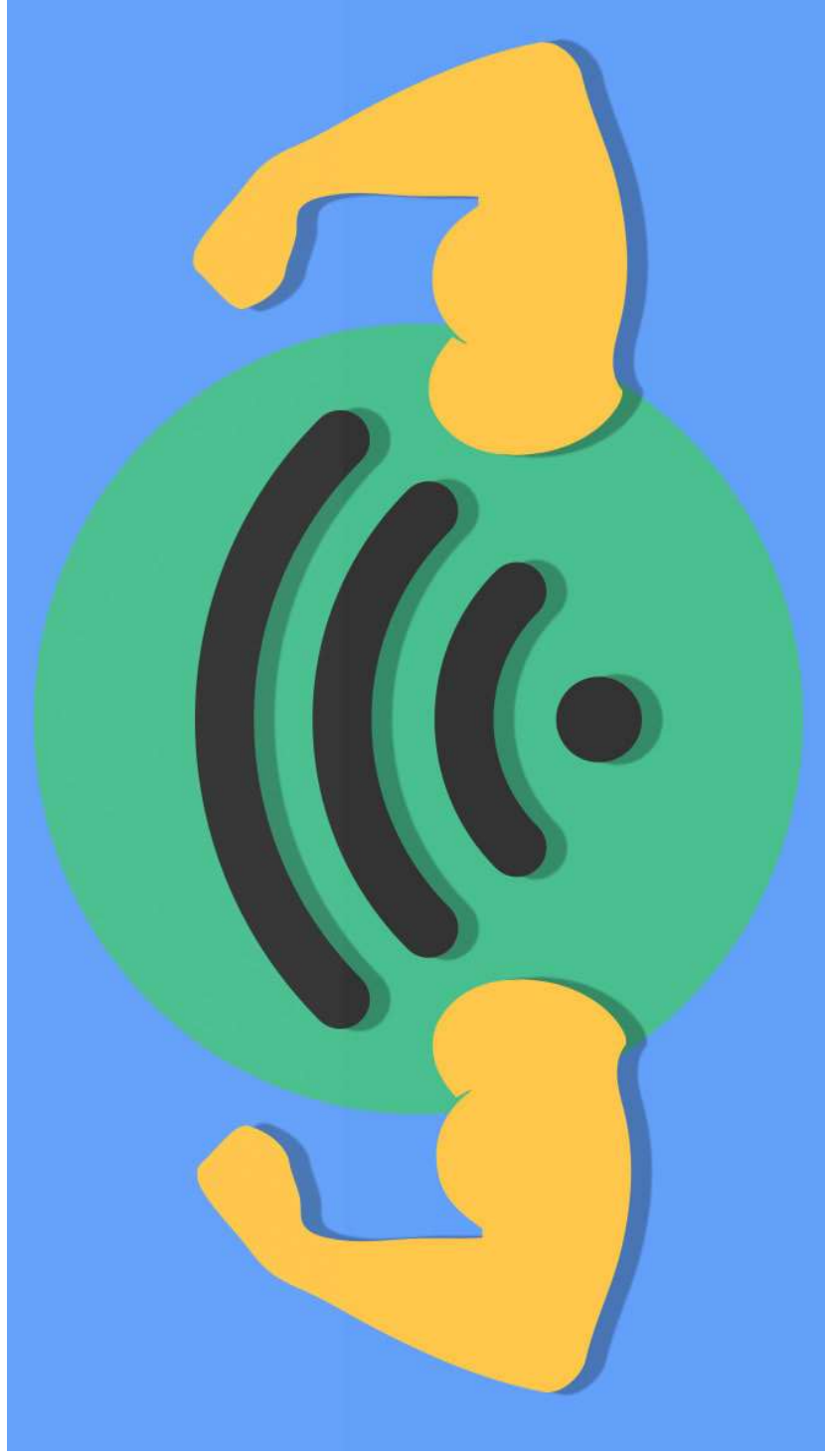
Raspberry Pi 3 Starterset ca. 60 €



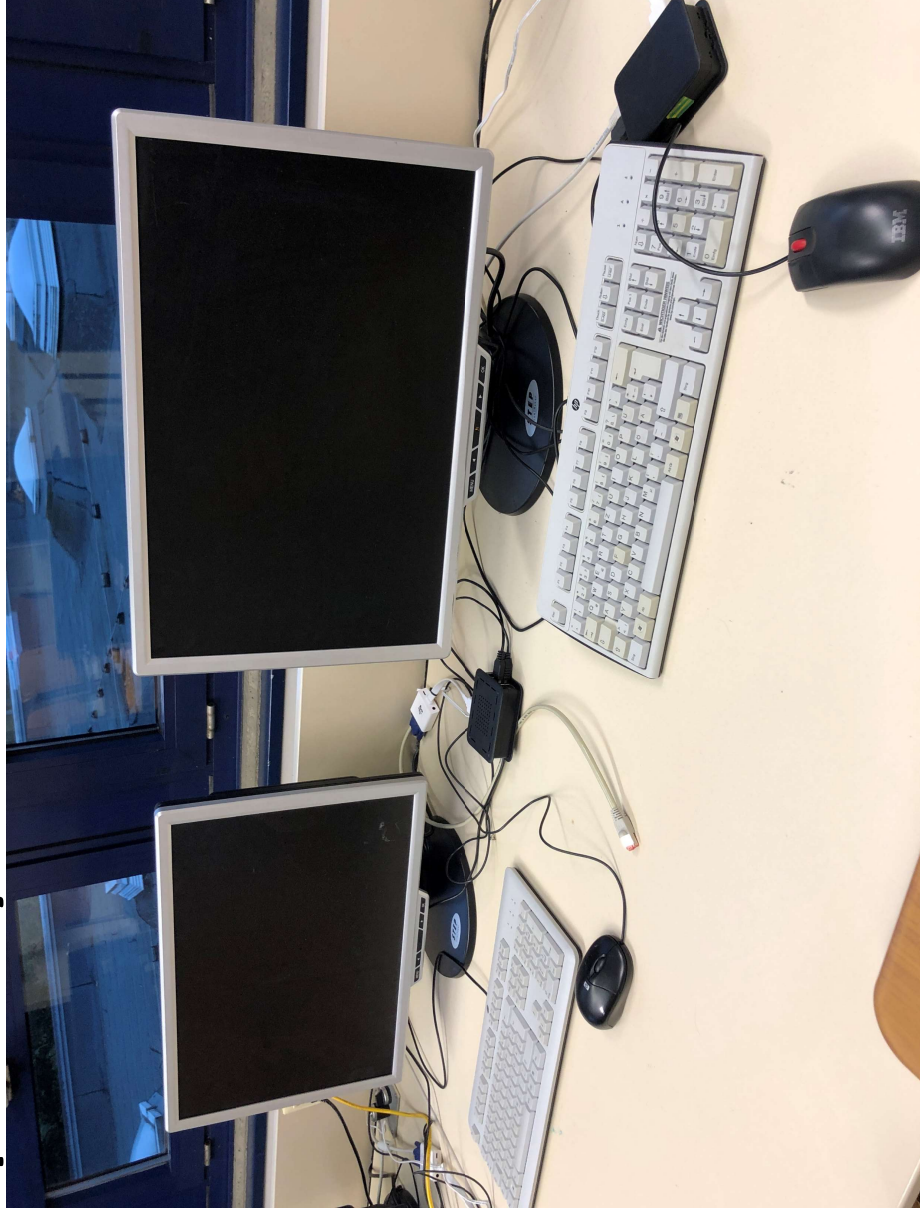
Weitere Voraussetzungen



Voraussetzungen



Raspberry Pi – Raum im BTI



Präsentation BYOD Raspberry Pi

Schwachpunkt



16 GB: 5 – 8 €

Einrichtung:



The screenshot shows the Raspberry Pi website with a navigation bar (BLOG, DOWNLOADS, COMMUNITY, HELP, FORUMS, EDUCATION) and a search icon. The main content area features a large red banner with the word "RASPBIAN". Below it, a paragraph states: "Raspbian is the Foundation's official supported operating system. You can install it with [NOOBS](#) or download the image below and follow our [installation guide](#)." This is followed by another paragraph: "Raspbian comes pre-installed with plenty of software for education, programming and general use. It has Python, Scratch, Sonic Pi, Java, Mathematica and more."

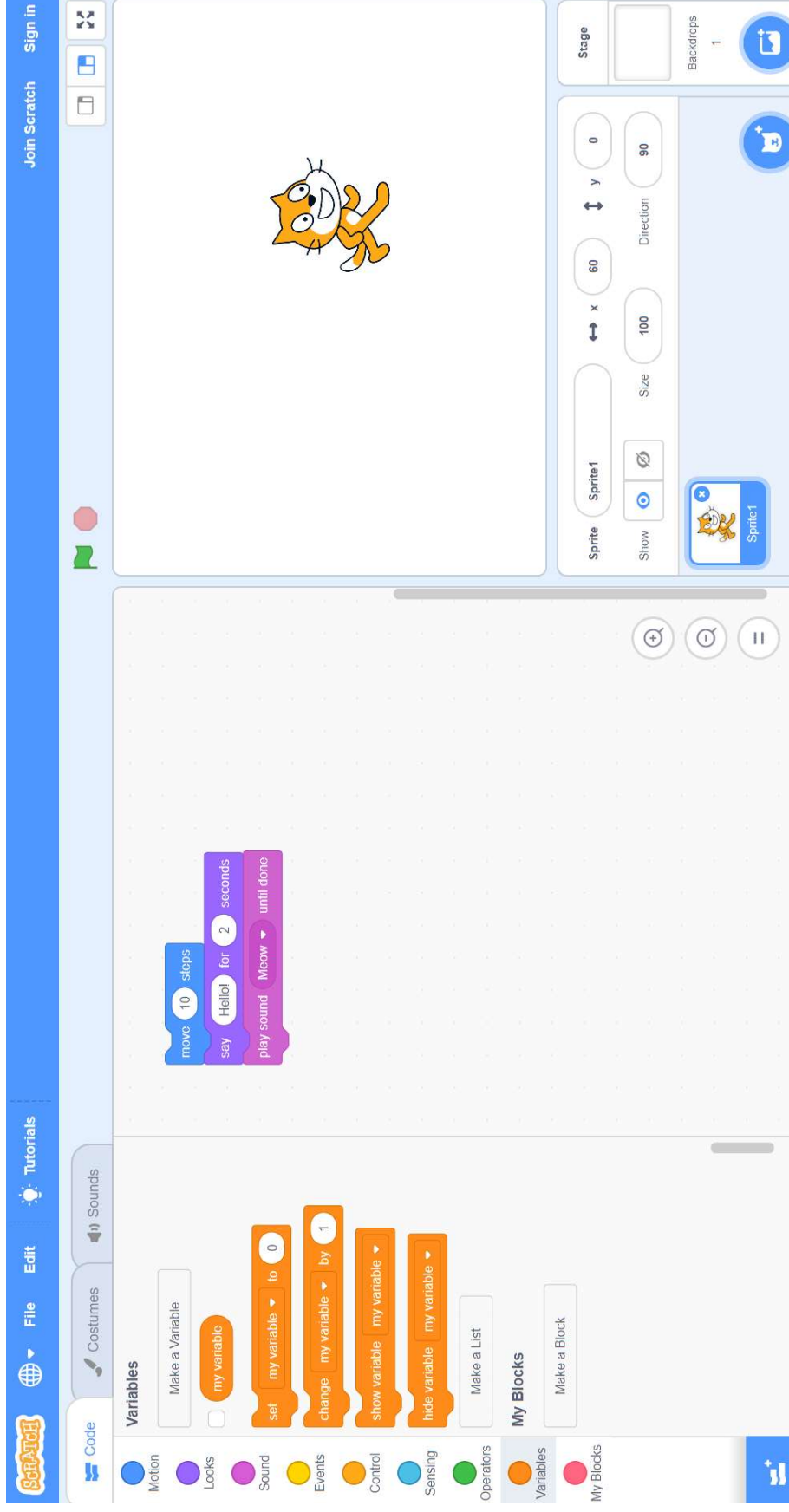
Two download options are presented:

- RASPBIAN JESSIE** (Full desktop image based on Debian Jessie):
 - Version: May 2016
 - Release date: 2016-05-10
 - Kernel version: 4.4
 - Release notes: [Link](#)
 - Download links: [Download Torrent](#), [Download ZIP](#)
 - SHA-1: 66a50545358e80229d77ebba89ab01f1c0fb4a02
- RASPBIAN JESSIE LITE** (Minimal image based on Debian Jessie):
 - Version: May 2016
 - Release date: 2016-05-10
 - Kernel version: 4.4
 - Release notes: [Link](#)
 - Download links: [Download Torrent](#), [Download ZIP](#)
 - SHA-1: 333bfc85e8944ecb1142337ead8c928d6c9d95

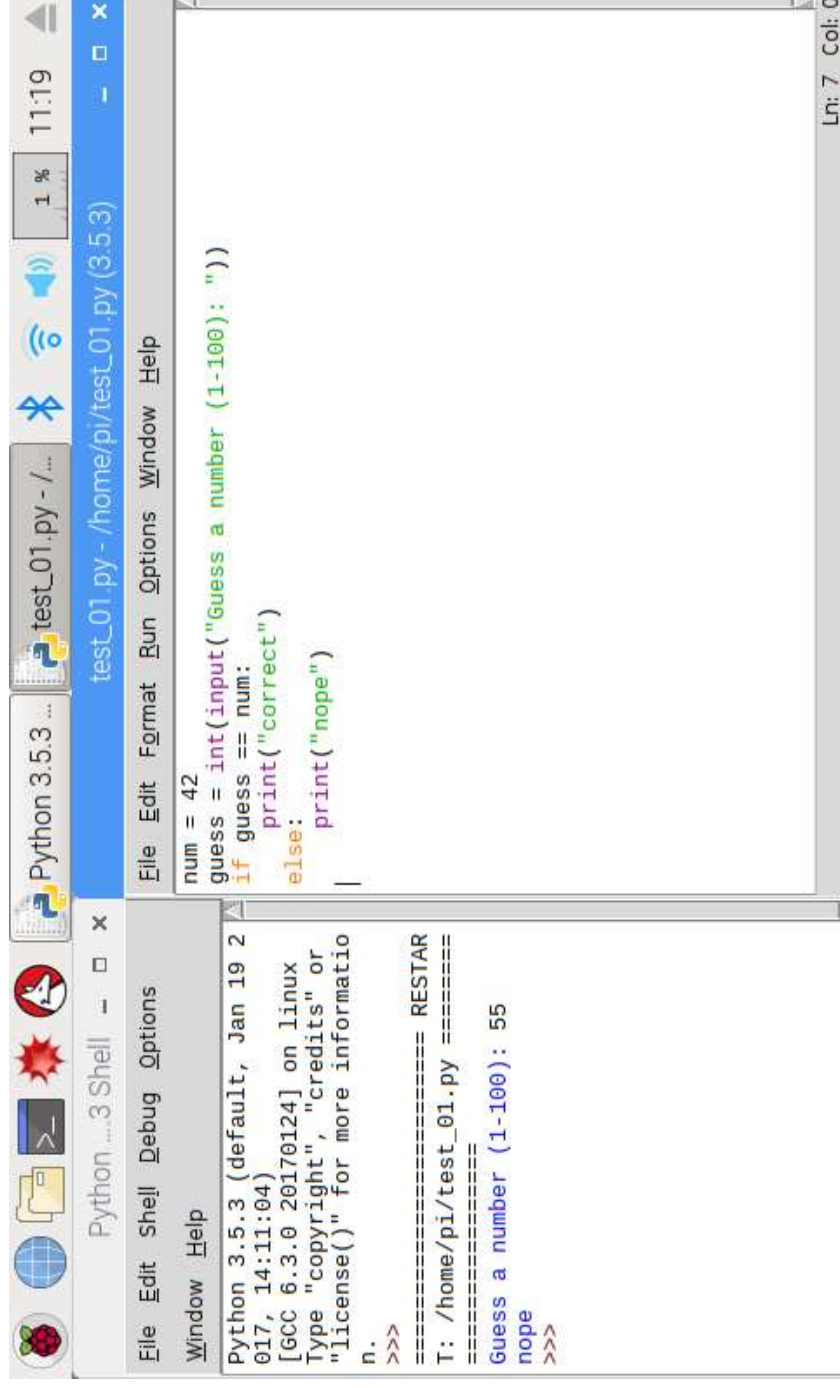
A note at the bottom states: "Note: Raspbian and NOOBS contain Java SE Platform Products, licensed to you under the Oracle Binary Code Licence Agreement available [here](#)."

ca. 1,5 Std.
bis Inbetriebnahme

Einsatzmöglichkeiten



Einsatzmöglichkeiten



The screenshot displays a Raspberry Pi desktop environment. On the left, a terminal window titled 'Python3 Shell' shows the output of a Python script execution. The output includes the Python version (3.5.3), GCC version (6.3.0), and system information, followed by a restart prompt and the execution of the script 'test_01.py'. The script prompts the user to 'Guess a number (1-100):' and the user has entered '55', resulting in the output 'nope'. On the right, a Python script editor window titled 'test_01.py - /home/pi/test_01.py (3.5.3)' shows the source code of the script. The code defines a variable 'num' with the value 42 and a function 'guess' that takes a number as input and prints 'correct' or 'nope' based on whether the input matches 'num'.

```
Python 3.5.3 (default, Jan 19 2017, 14:11:04)
[GCC 6.3.0 20170124] on linux
Type "copyright", "credits" or
"license()" for more
>>>
===== RESTART
T: /home/pi/test_01.py =====
>>> Guess a number (1-100): 55
nope
>>>
```

```
num = 42
guess = int(input("Guess a number (1-100): "))
if guess == num:
    print("correct")
else:
    print("nope")
```

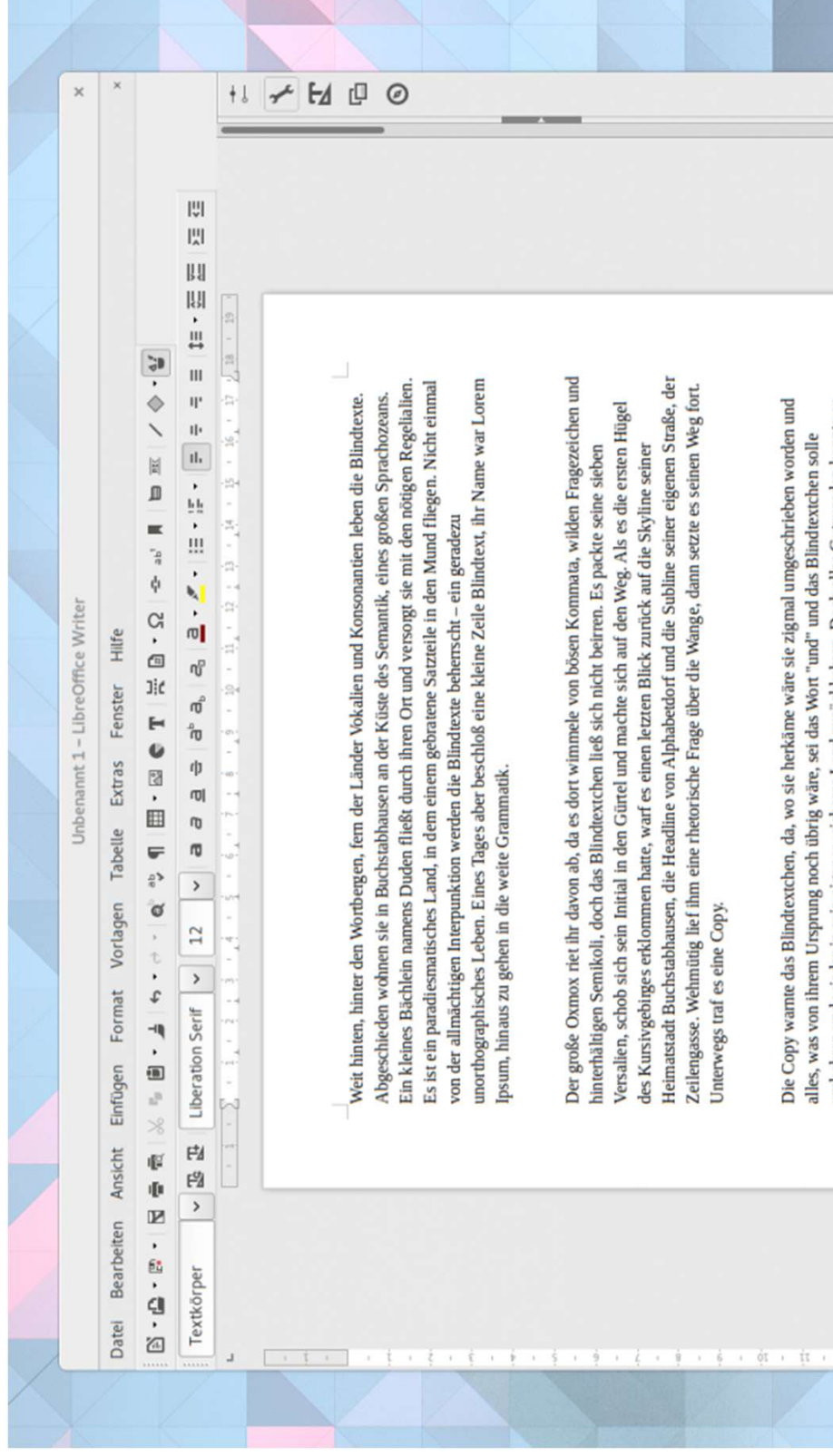
Einsatzmöglichkeiten



Einsatzmöglichkeiten

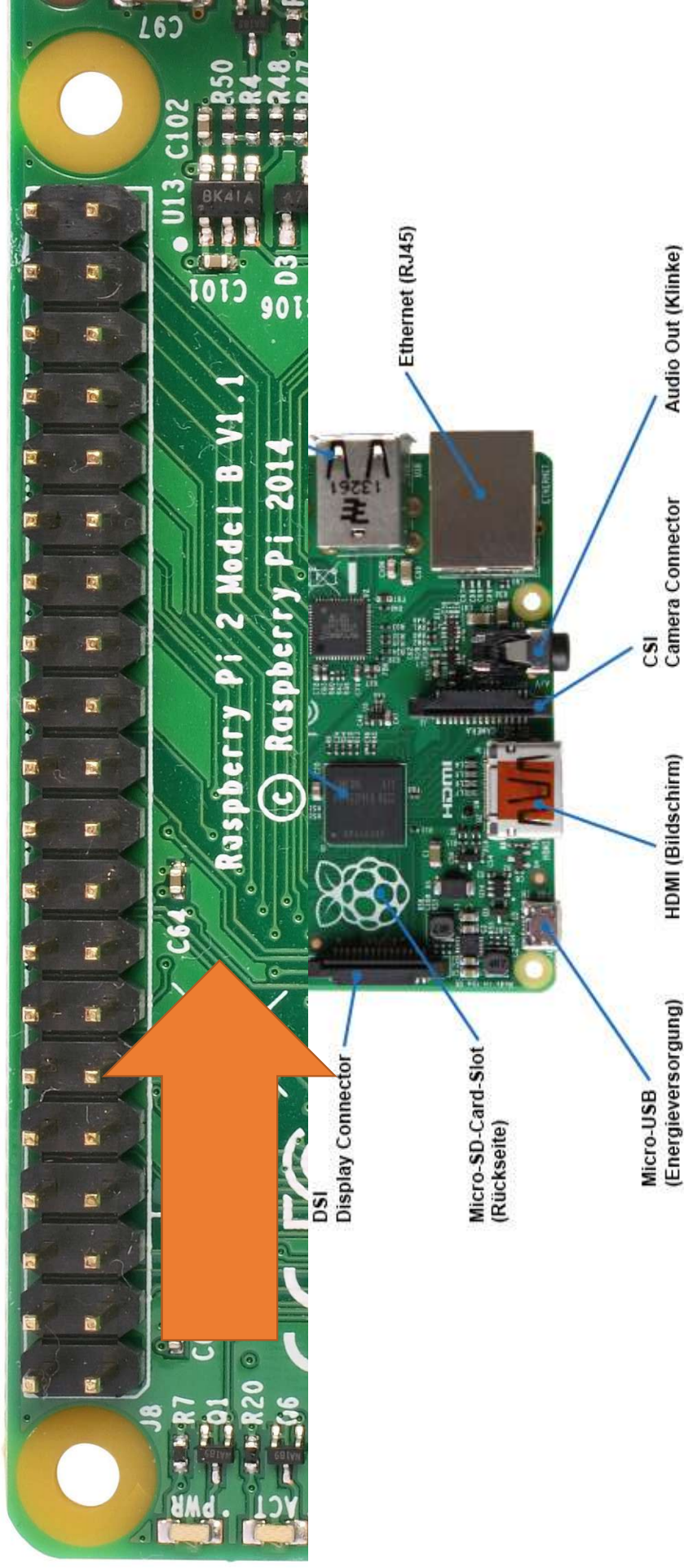


Einsatzmöglichkeiten

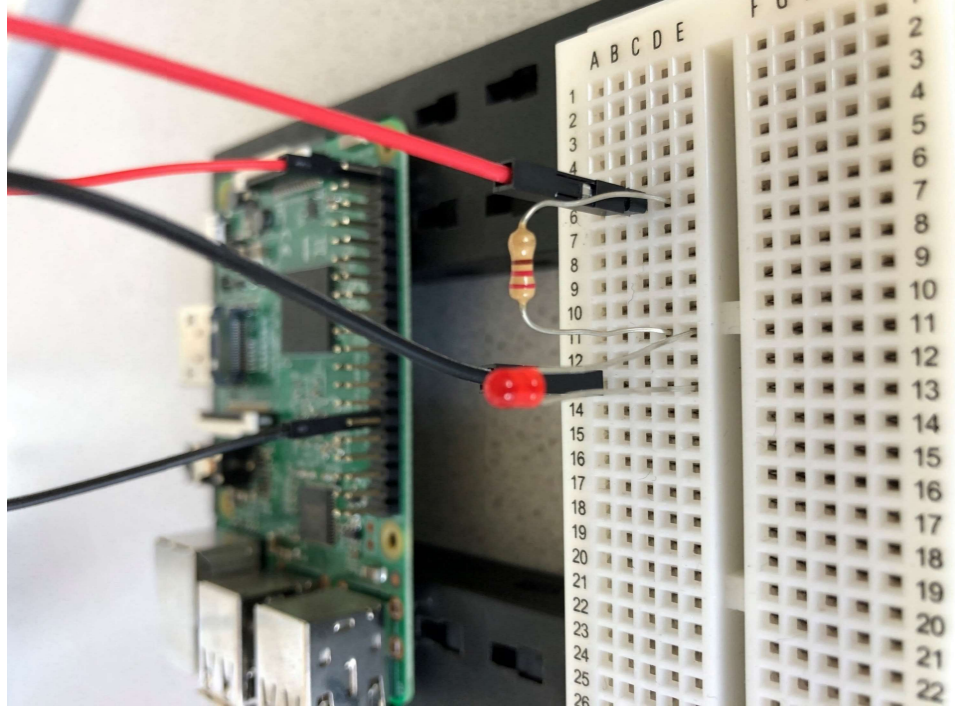


Präsentation BYOD Raspberry Pi

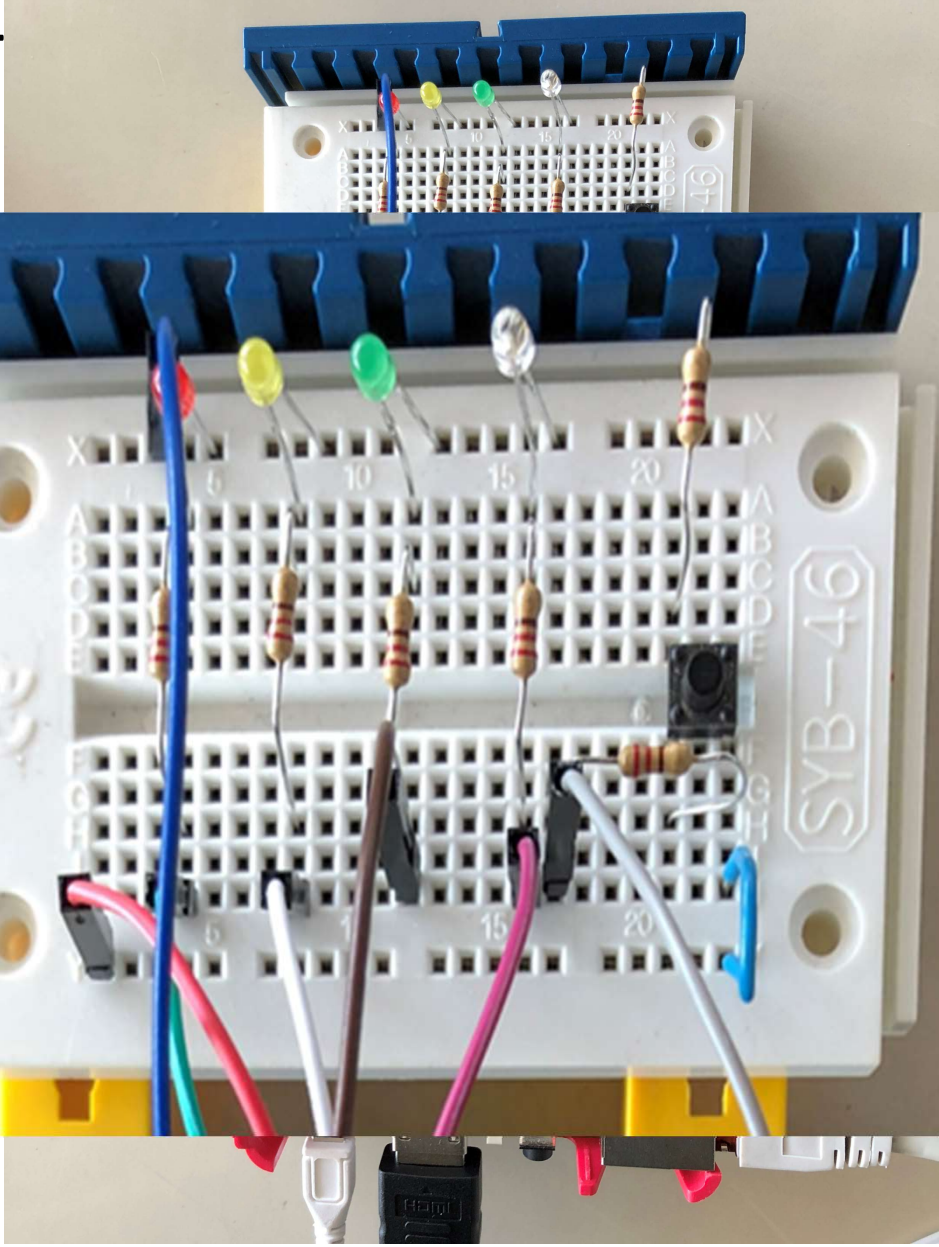
Einsatzmöglichkeiten



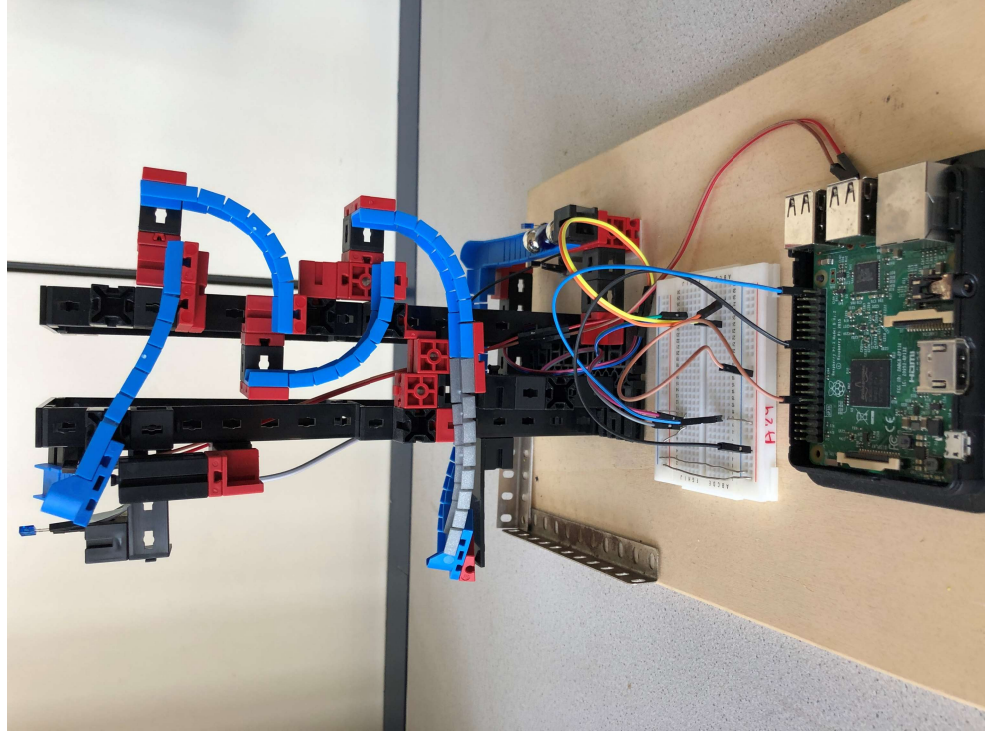
Einsatzmöglichkeiten: Stromkreis mit LED



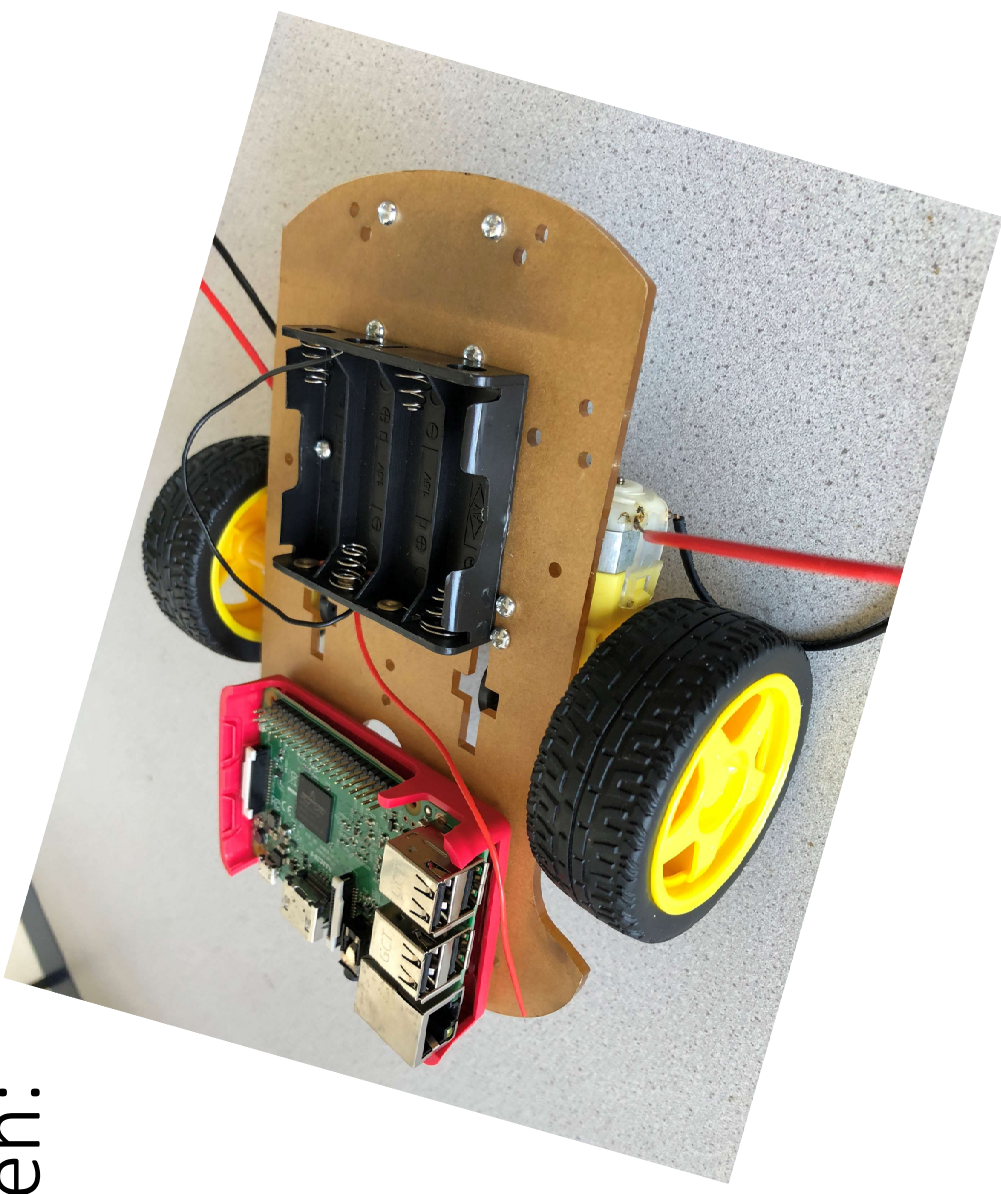
rampel



Einsatzmöglichkeiten: Physikunterricht: Beschleunigung und Zeitmessung

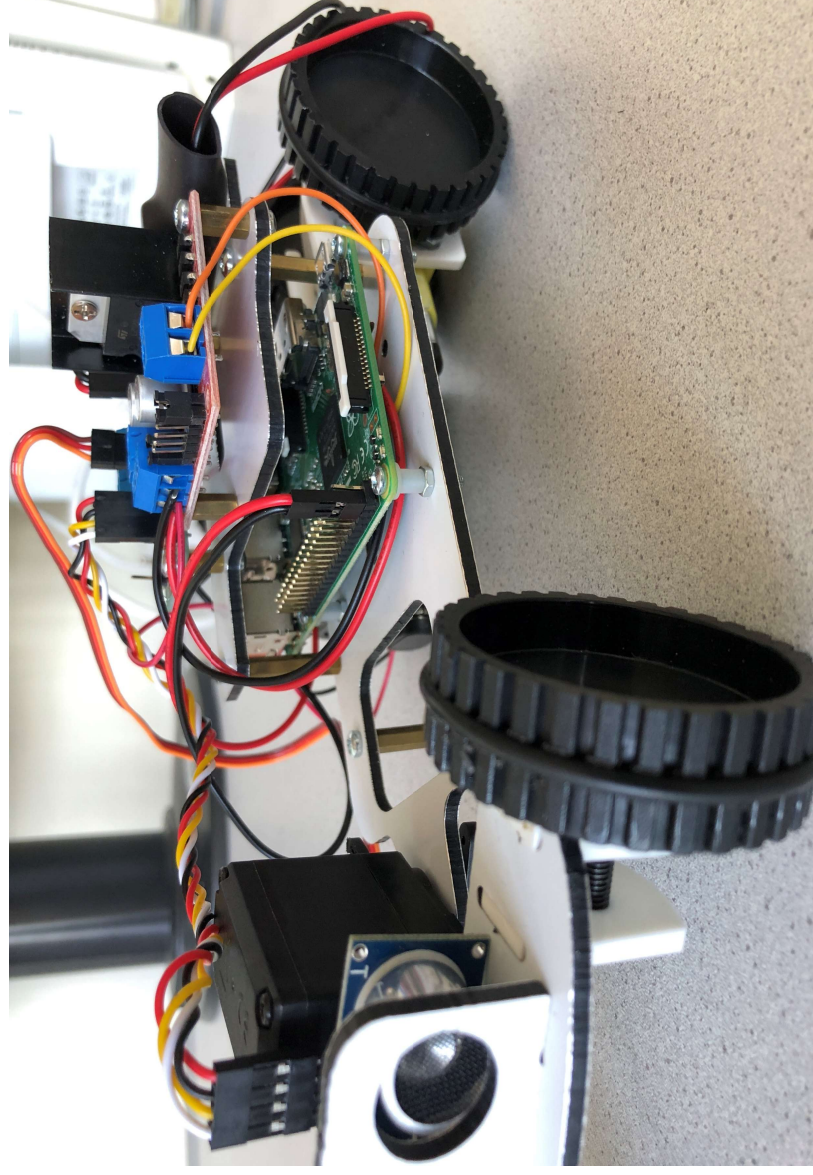


Einsatzmöglichkeiten: Roboterfahrzeug (mit Hilfe von selbstgedruckten Bauteilen mittels 3D-Drucker)

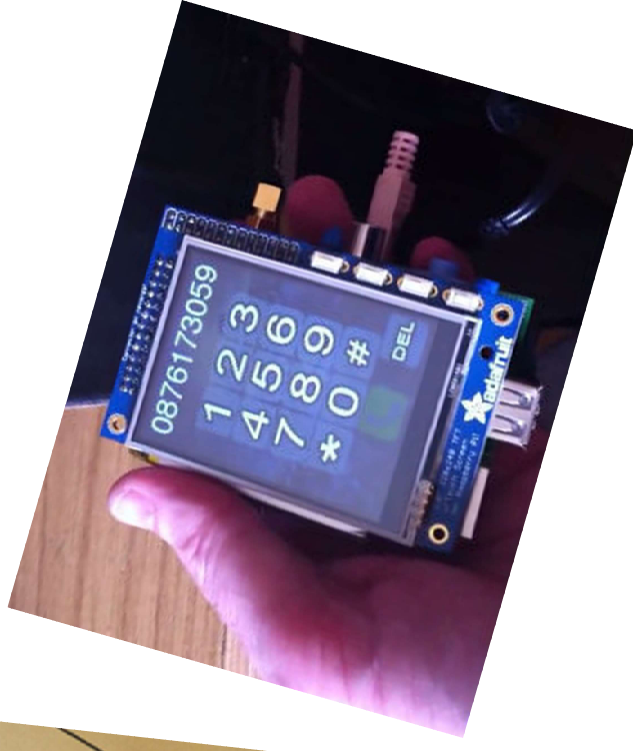
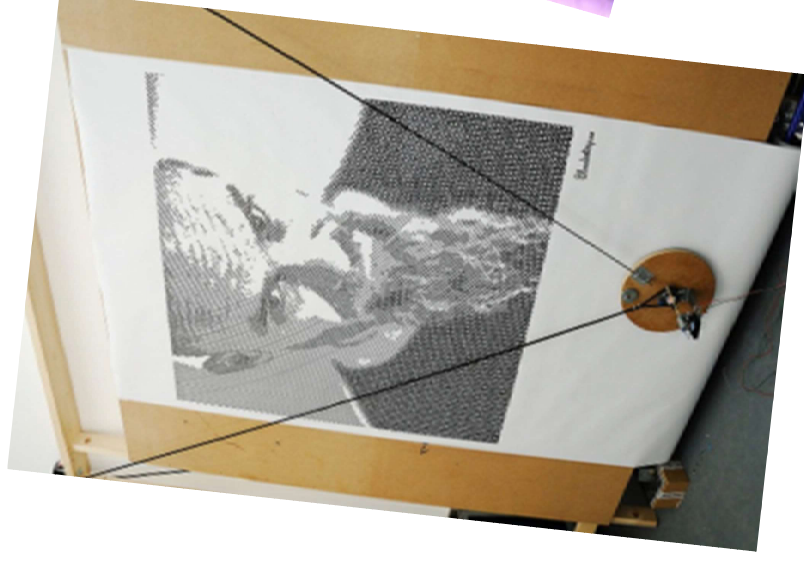


Präsentation BYOD Raspberry Pi

Einsatzmöglichkeiten



Projekte



Astro-Pi Mission



Fazit:

- Ermöglicht allen SuS einen Computer zu besitzen
- Ist in Schule und zu Hause einsetzbar
- Kann „normalen PC“ für Standardanwendungen ersetzen
- Kann nur bedingt für Vorbereitungen und Prüfungen bspw. zum NRW-EDV-Führerschein eingesetzt werden (Microsoft Office wird benötigt)
- Ist nicht für Spezialanwendungen konzipiert und einsetzbar (z.B. CAD-Software; Netzwerktechnik; Grafikbearbeitung)

Noch Fragen?

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