

Hardware: display, battery, button

in Liste In Progress

Beschreibung Bearbeiten

We need a small screen to show the measured heart rate, the state of the device (measuring, switched on/off, charge of battery, bluetooth connection).

There is some background knowledge about different display types here:

<https://www.androidauthority.com/display-technology-lcd-oled-led-3030739/>

but it is probably not necessary to spend too much time and money on that as we only want to display some easy data.

Here are some possible devices:

https://www.reichelt.de/nano-grafik-oled-0-84-zoll-96x16-dot-weiss-ea-w096016-xalw-p259807.html?PROVID=2788&gclid=Cj0KCQjwpcOTBhCZARIsAEAYLuXiEubmd02c2NtJB_vEPpNjYUU22bvUsMnzgSekl-dlr5bNyqB2zE8aAhoREALw_wcB


 [Waveshare 2.23" OLED Display Module for Raspberry Pi Pico \(128x32\)](#)

https://www.amazon.de/MakerHawk-Display-SSD1306-3-3V-5V-Arduino-As-Shown/dp/B07BDFXFRK/ref=asc_df_B07BDFXFRK/?tag=&linkCode=df0&hvadid=309009267279&hvpos=&hvnetw=g&hvrand=2091670376950663788&hvpone=&hvpstwo=&hvgmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9042959&hvtargid=pla-562010753449&th=1&ref=&adgrpid=61284885533

 [w. Waveshare 19192 1.28inch LCD Module, 15,90 € - Welelectron](#)

Before ordering the display we need to make sure that it is compatible with our platform.

For the battery we need to consider how much energy all of our components will need and how much ports we need. For example this one

 [Portable-Akku Powerpack für Raspberry Pi](#)

has 2 USB ports (for the Raspberry and a display) and provides energy for ~9h (3800mAh). We also need to charge the camera and maybe the laser pointer.

<https://eckstein-shop.de/LiPoAkkuLithium-IonPolymerBatterie32C7V2500mAhJST-PHConnector>

I'm not sure about the connections, maybe someone has more experience on that.

This energy supply looks very promising as it is suitable for commercial use and can supply energy for 4 devices. It can be controlled (meaning we can turn off the camera after the measurement) and we can directly add a battery on it:

 [RASP STROM PI 3 - Raspberry Pi - Der StromPi 3](#)

+ battery pack

 [RPI STROMPI BAT2 - Raspberry Pi - StromPi 3 Akku-Pack, 2000 mAh](#)

It might be too expensive (100€) and big. We need to check if it is necessary.

For the button we can use something very simple like that and add a 3D printed nice looking button on top:

 [DEBO BUTTON - Entwicklerboards - Taster-Modul](#)



Johanna Conrad hat diese Karte zu In Progress hinzugefügt
vor einer Stunde