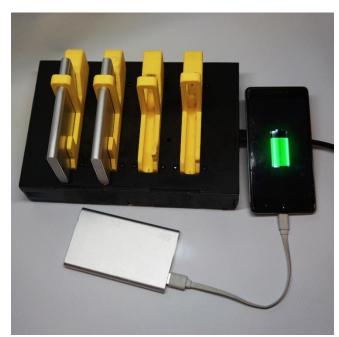
### 1. Power Station

Power Station is a smart device which can be used in public areas to make mobile charging more convenient. You can rent fully charged powerbank on this station and have freedom of movement with it. It can be used for airports, train stations, supermarkets, etc. You don't have to be "socket – dependent" or think about charging your powerbank anymore.



# 2. Headband

This stylish headband is a pulse-sensing wearable device with LED heart that flashes to the beating of your heart. We used ear clips and a pulse sensor to make it sensitive to your heart rate. The heart displays on the LED Matrix, inside there's a battery that you can easily recharge in 20 minutes.

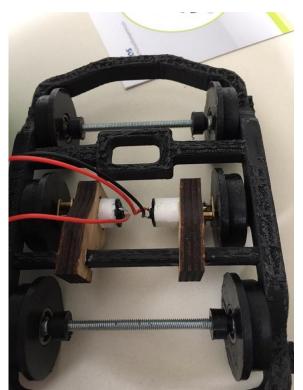


## 3. Self-contained train

The project is called self-contained train. It is a new generation locomotive for Russian Railways. It represents a new look on the whole railway industry. This train is completely self-contained and is controlled remotely by a trained engineer. Needed software for the control is "Remoutxy" app.

This version of self-contained train has been proposed and created by pupils and students with the means of digital fabrication.







4. Braille trainer

This is a trainer apparatus, which teaches you the Braille script.

Possession of Braille is one of the basic skills that allow people with a visual disability to be fully socially adapted. It is the possession of Braille that allows you to work on a computer, read books, and also navigate the world around you.

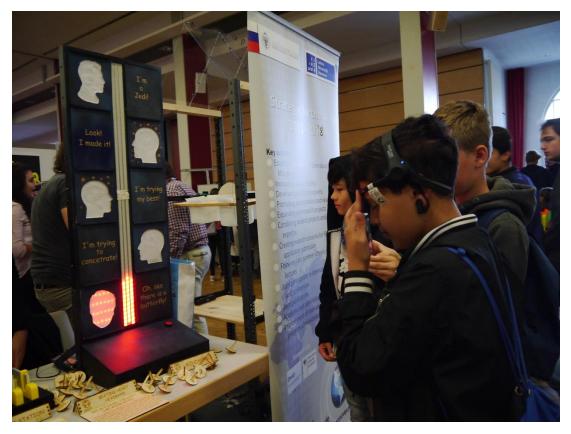
Unfortunately, at the moment only a little more than 5% of people totally blind have this skill. These are mainly people with congenital visual impairment who have been trained in specialized institutions. People with visual disabilities who are blinded at a later period are usually more difficult to master Braille due to the lack of or high cost of training equipment.

And it was for a quicker and easier study of the braille font that this device was created.



## 5. Mindmeter

In front of you there is the MindMeter, device that can measure your ability to concentrate! Special neuro interface (neuro headset) uses two sensors to read the bioelectrical activity of your brain. On the MindMeter scale you will see the processed data on your concentration (mindfulness) in the form of different concentration levels. If you're ready to find out whether you're able to focus on something or not, put the headset on and there you go, it's adventure time!



#### 6. Solar charger

DIY-set "Solar charger 5V"

This set is created, both for use enthusiasts, for master classes on renewable energy and for people who prefer to be selected in places far from sources of electric energy. Solar charger created by us has a number of advantages over existing analogues: 1) It is very simple in assembly

2) It uses highly efficient solar panels of the last generation with a bid of 20%, allowing to take charging under conditions without direct sunlight.

3) The charger has an additional battery that allows charging in inconsistent illumination. 4) has low cost, low weight and high ergonomic in disassembled state - does not take a lot of place in the bag.

5) It has a number of mounts for positioning it on various surfaces. For hanging, attaching to glass, stand for placement on flat surfaces.

Despite its compact size and low cost, it allows you to charge smartphones or serves as a power source 5V 2A, via a standard USB connector.

