Manual / Instructions:
Oculus Rift CV1 Cooling Kit

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IMPORTANT – READ FIRST:

Since we lay it in your hands to assemble the kit with your choosen hardware we are not responsible for anything except the 3d printed part ordered through our shapeways shop.
Since you assemble your kit yourself we are not responsible for any problems occured by third party hardware, your assembly or during the assembly.

All the parts mentioned on our parts list are just assumptions that worked great on our prototypes. Nevertheless performance could be not optimal due to factors we can´t influence like tolerances, choosen hardware, different suppliers etc.

If you have any thoughts on optimisation of this manual or the product itself, feel free to contact us!
Feedback is very welcome to optimize product.

We hope that you will have a good time assembling your kit and using it!

For questions, thougts or tips contact us via E-Mail: info@simprolouge.com

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Oculus Rift CV1 Cooling Kit
Parts List

3D printed facial interface replacement (essential):

https://www.shapeways.com/product/NAJ7Y4LJY/oculus-rift-cooling-addon-diy-kit?optionId=70152998

Fan (assumption): Axial Fan SUNON HA40201V41000UA99 features low noise level and low vibration

https://www.pollin.de/p/axialluefter-sunon-ha40201v41000ua99-40x40x20-mm-12-v-320528

Foam (assumption):
Foam should be choosen by personal comfort needs or restriction in terms of allergic issues.

Example:
https://www.amazon.de/lulushop-Glatt-Schaumstoff-Daemmung-Schallschutz-Fester-Rolllaeden-platten-D%C3%A4mmung-Schaumstoff-Noppenschaum100x50-cm/dp/B076P33M8F/ref=sr_1_1_sspa?ie=UTF8&qid=1538641296&sr=8-1-spons&keywords=lulushop%2Bglatt%2Bschaumstoff&th=1

PWM DC Motor Speed Controller (assumption): speed control for the fan is a nice recommended feature – use whatever solution you want to realize rpm adjustement of the fan

Example:
https://www.amazon.de/Pixnor-Niedrige-Spannung-12V-Motor-Drehzahlsteller/dp/B0113XRDK2/ref=pd_sbs_107_3?_encoding=UTF8&pd_rd_i=B0113XRDK2&pd_rd_r=6f58936b-c7af-11e8-bfe6-efd9ebabc939&pd_rd_w=1zqKK&pd_rd_wg=kMrha&pf_rd_i=desktop-dp-sims&pf_rd_m=A3JWKAKR8XB7XF&pf_rd_p=946762da-975a-438a-9e2b-a585cbe769b5&pf_rd_r=5RA0B09SWKP9E233NP6V&pf_rd_s=desktop-dp-sims&pf_rd_t=40701&psc=1&refRID=5RA0B09SWKP9E233NP6V

Housing for PWM DC Motor Speed Control: i printed myself a housing for the Speed Controller i featured in the list. The 3D model for printing will soon be available on our homepage

Electric Cables: free choice, i used old ones from a broken joystick

Glue: any all purpose additive will do the job – it should be able to glue plastic and the choosen foam

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Oculus Rift CV1 Cooling Kit

Tools needed for assembly:

- Soldering Iron
- shrinking tube
- Cutter Knife
- Scissor
- clothes pegs
- printer to print the foam template

Skills needed:

- soldering basic skills
- being able to work with a cutter knife without cutting yourself or loosing some fingers
- if you are able to lace up your shoes there should be no problems assembling the kit

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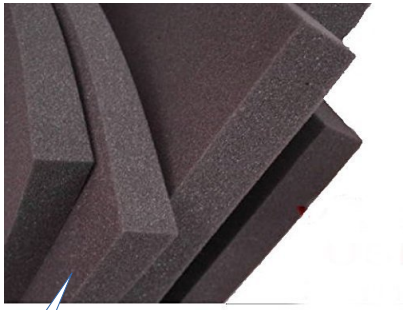
Oculus Rift CV1 Cooling Kit
Step 1

Step 1:

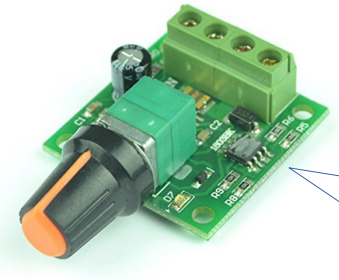
Order all parts necessary:



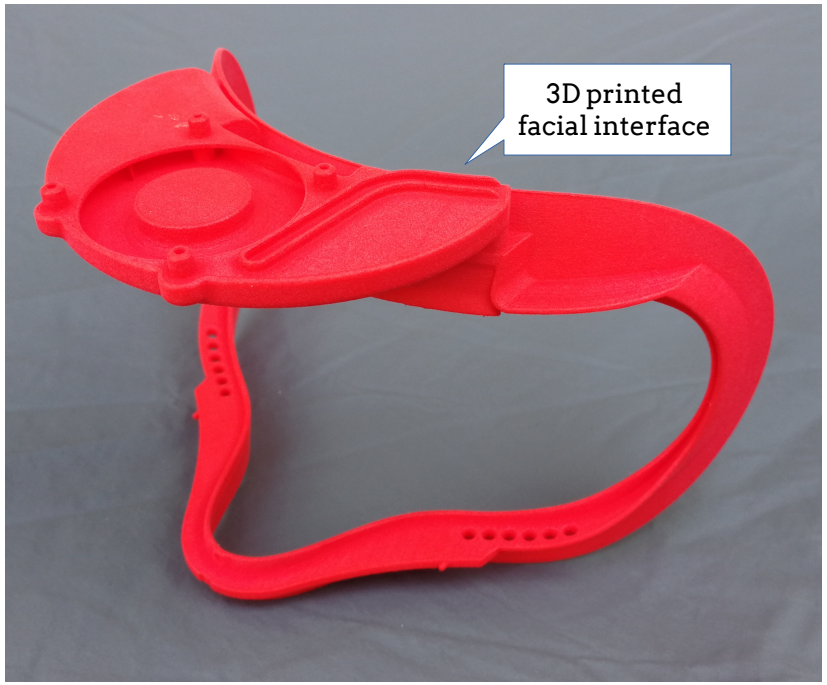
Foam

Electric Cables

Fan



PWM
DC Motor
Speed Controller



3D printed
facial interface

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Oculus Rift CV1 Cooling Kit
Step 2

Step 2:

Prepare your Oculus Rift CV1:

Remove the facial interface from the Rift by gently pulling it away from the Rift

Picture courtesy of: https://www.vrheads.com/sites/vrheads.com/files/styles/large/public/field/image/2017/01/rift-hdmi-remove-face-top-01.jpg?itok=lu35uTWE

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Oculus Rift CV1 Cooling Kit
Step 3

Step 3:

Prepare your Oculus Rift CV1:

Unstrap the headband on the upper side of the Rift

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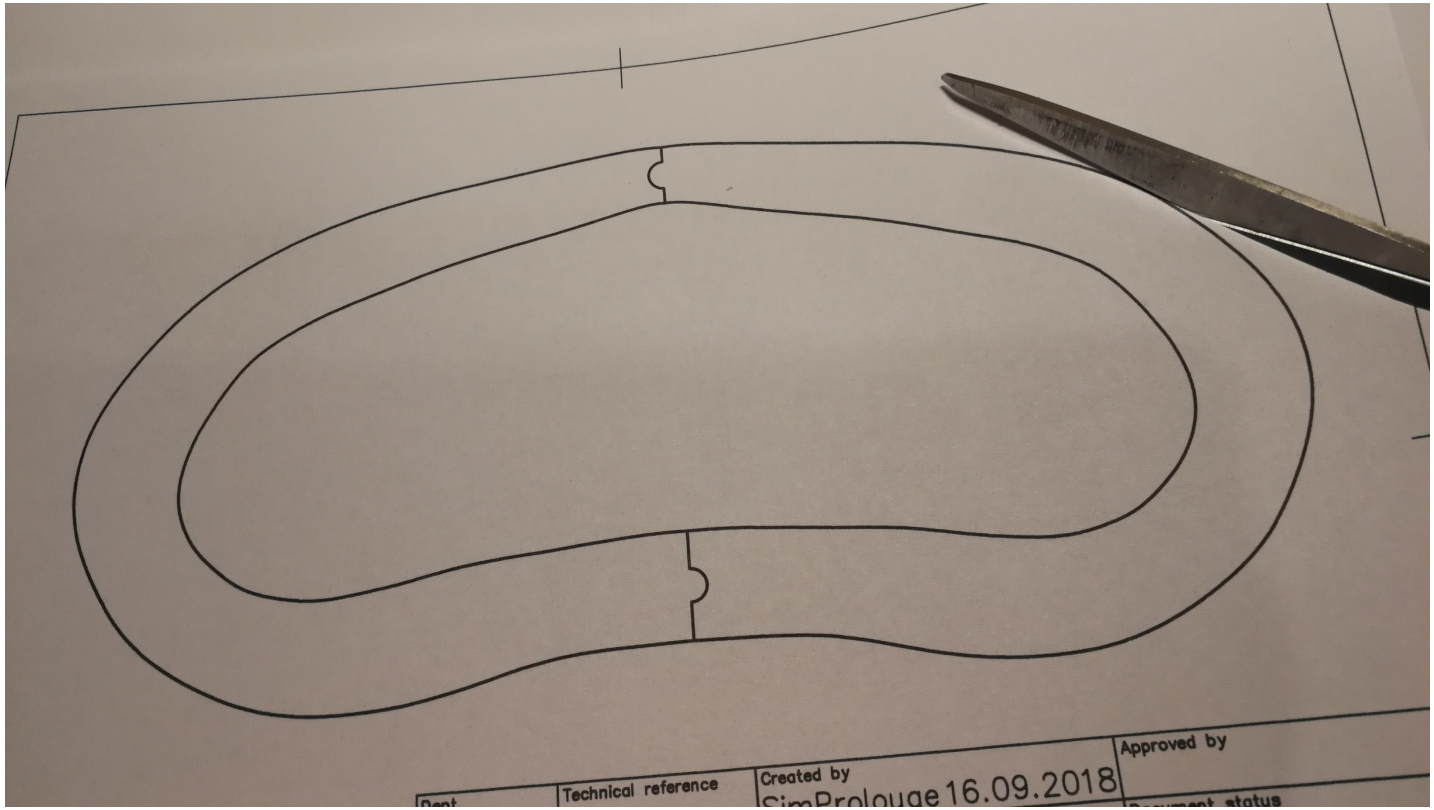
Oculus Rift CV1 Cooling Kit
Step 4

Step 4:

Prepare Foam:

Print out the template downloadable on our Website https://www.simprolouge.com/start/products/oculus-rift-cv1-cooling-kit/

Use a scissor to cut the template



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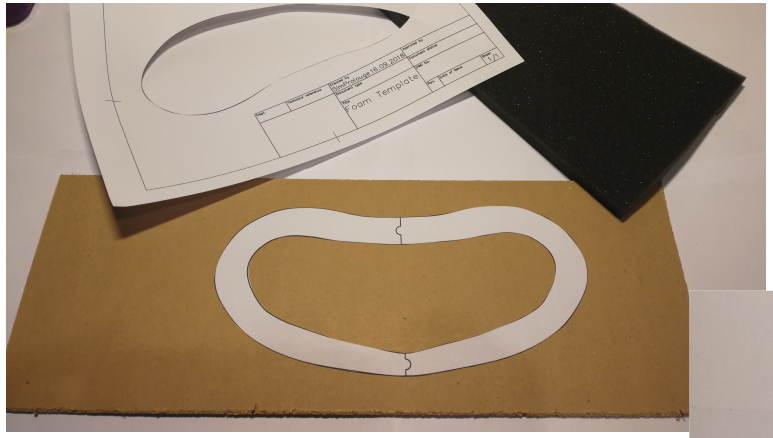
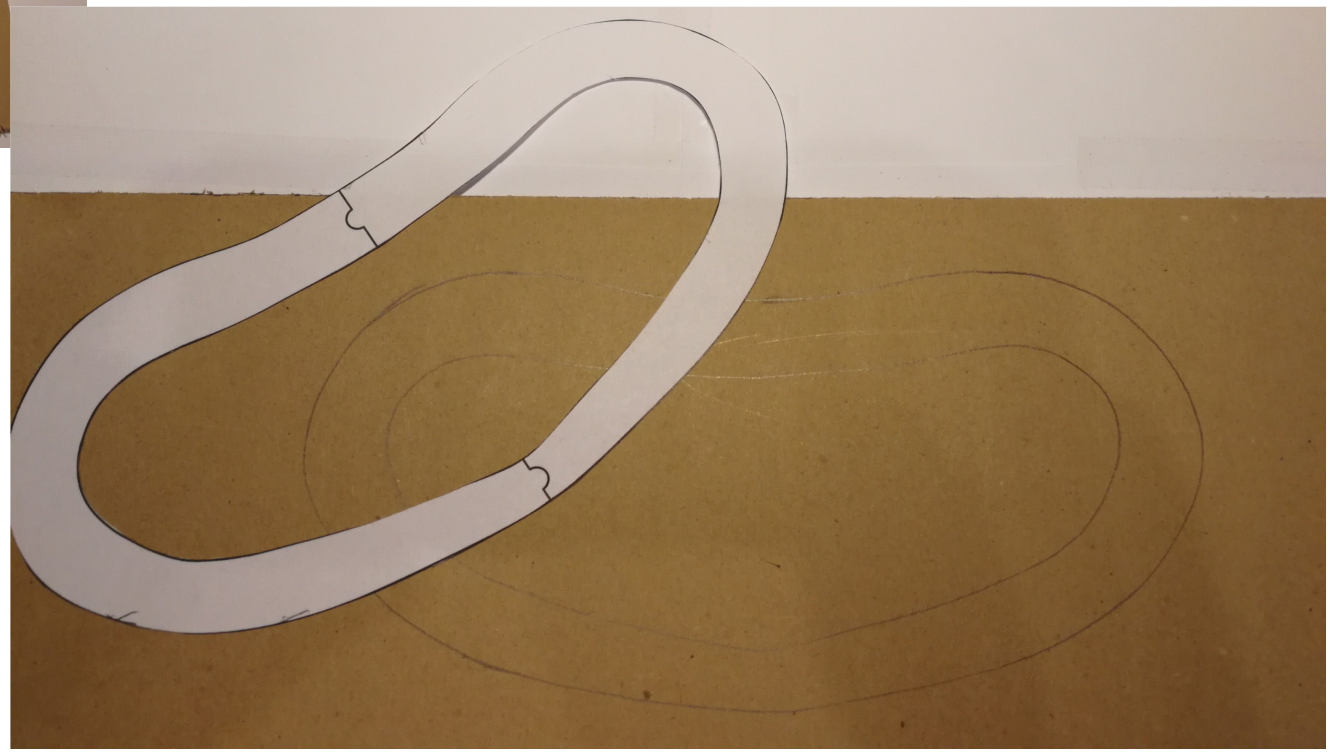
Oculus Rift CV1 Cooling Kit
Step 5

Step 5:

Use paper template to create a solid template out of thin wood or plastic:





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Oculus Rift CV1 Cooling Kit
Step 6

Step 6:

Place the solid template on the foam:

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Oculus Rift CV1 Cooling Kit
Step 7

Step 7:

Cut out the foam with a sharp cutter knife or scalpel:

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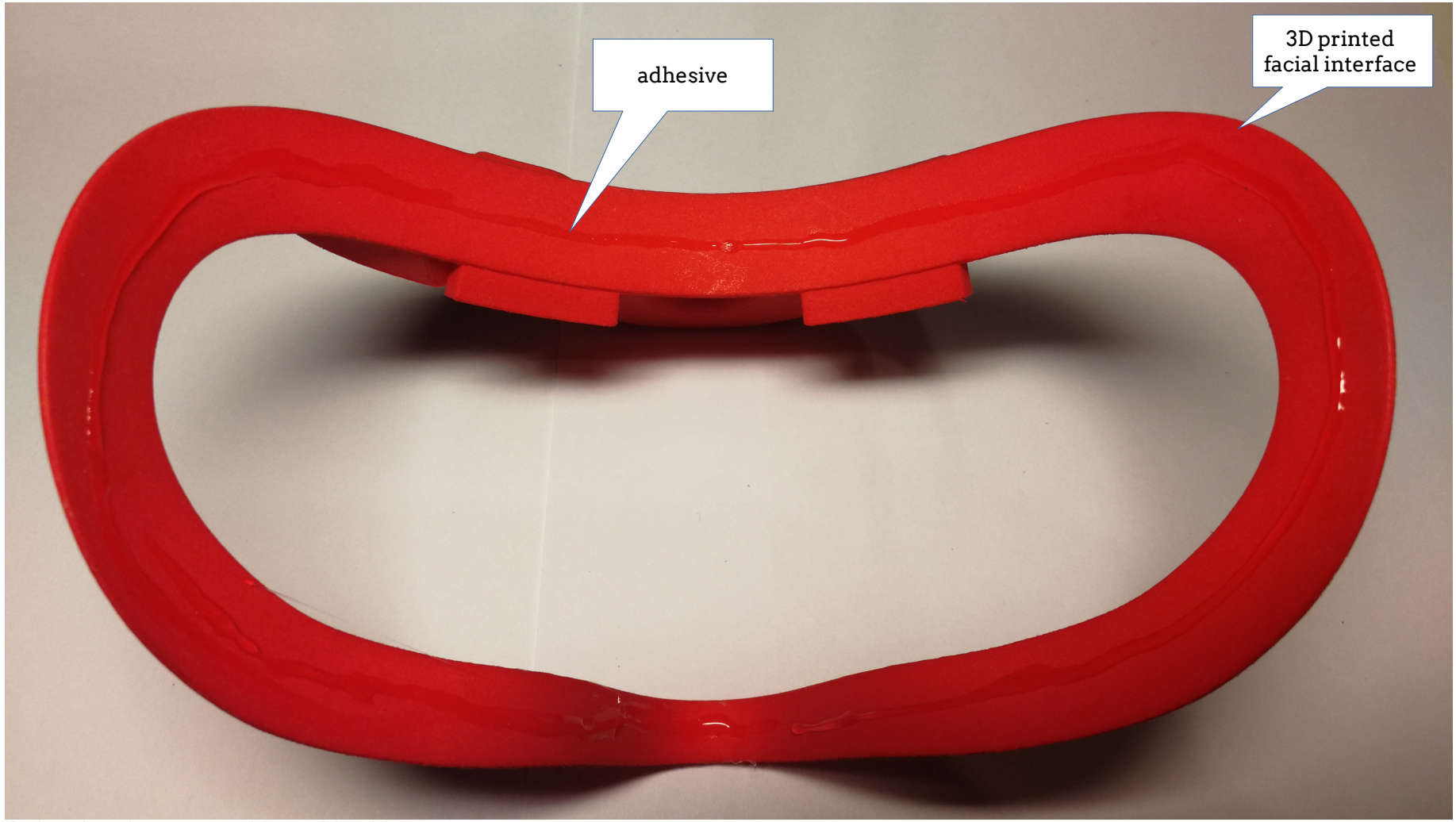
Oculus Rift CV1 Cooling Kit
Step 8

Step 8:

Apply a thin trace of adhesive on the 3d printed facial interface:



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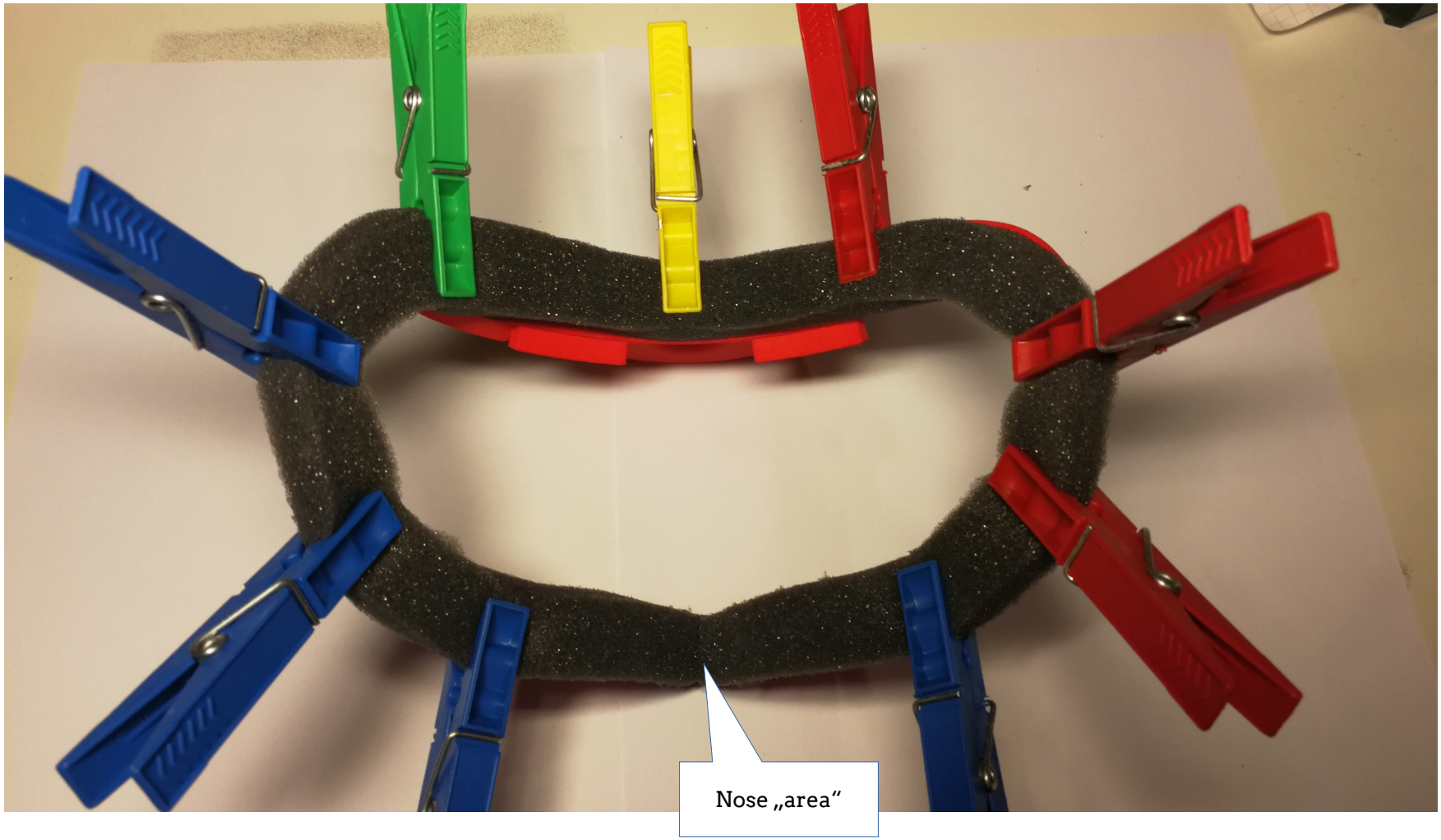
Oculus Rift CV1 Cooling Kit
Step 9

Step 9:

Apply foam to the 3d printed facial interface and fix it with clothes pegs:
It´s best to start applying at the section where your nose sits at the interface



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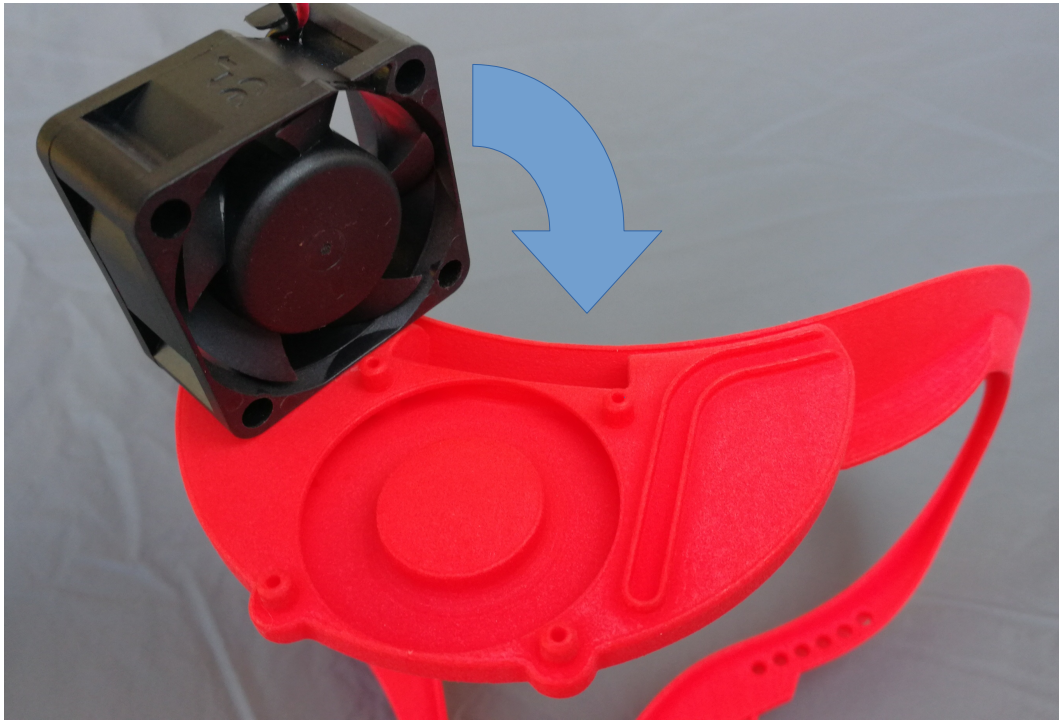
Oculus Rift CV1 Cooling Kit
Step 10

Step 10:

Attach the Fan to the interface: (i used hot glue to be able to detach the fan if something goes wrong)
Make sure to mount it to be able to suck air out of the interface not blow air into it!



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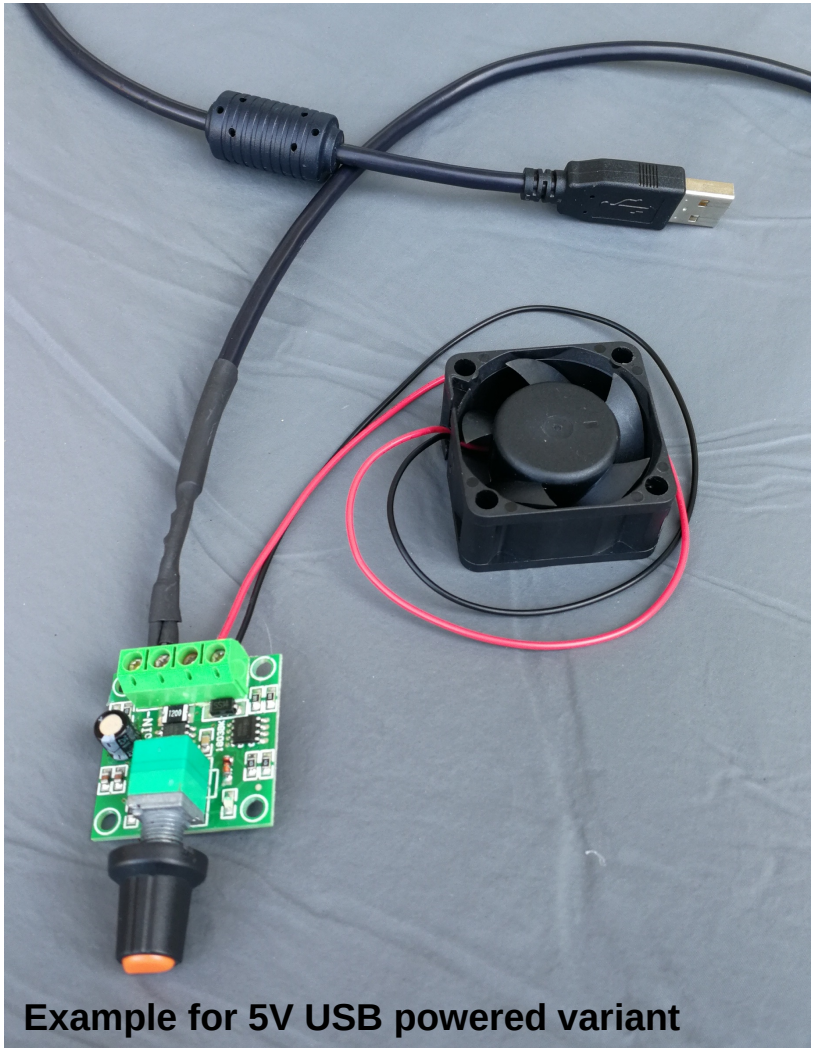
Oculus Rift CV1 Cooling Kit
Step 11

Step 11:

Prepare electrics:



The Layout of your electrics is based on the chosen components.
Therefore i won´t go deep into that.

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Oculus Rift CV1 Cooling Kit
Step 12

Step 12:

Final assembly:

The electric cable is attached to the Rift´s cable via cable straps.

The headband has to be attached through the gap in the upper part of the interface before refitting the interface to the Rift.

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