

Zefiro - Technology and Innovation against Covid-19

Original

Zefiro - Technology and Innovation against Covid-19 / Valpreda, Fabrizio; Alessio, FABRIZIO GIORGIO; Dentis, Alessandro; Auliso, Asja; Bellisario, Stella; Bortolotti, Dario; Bruno, EVA VANESSA; Campanella, Alessandro; Cappa, Francesca; Gargiulo Pozzo, Marta; Mercenati, Davide; Rovera, Fabiana. - ELETTRONICO. - (2021). (World Heritage and Design for Health - Le Vie dei Mercanti XIX International Forum Napoli - Capri 17-19 giugno 2021).

Availability:

This version is available at: 11583/2972293 since: 2022-10-13T19:00:31Z

Publisher:

Benecon

Published

DOI:

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World Heritage and Design for Health
XIX INTERNATIONAL FORUM
NAPLES 17 - CAPRI 18 | 19 JUNE 2021

Le Vie dei Mercanti XIX INTERNATIONAL FORUM

Naples 17 - Capri 18 | 19 June 2021



Zefiro

Technology and Innovation against Covid-19



Concept: the electro-ventilated mask

Zefiro is an electro-ventilated mask made up of **custom designed elements** and other **widely-available components**.

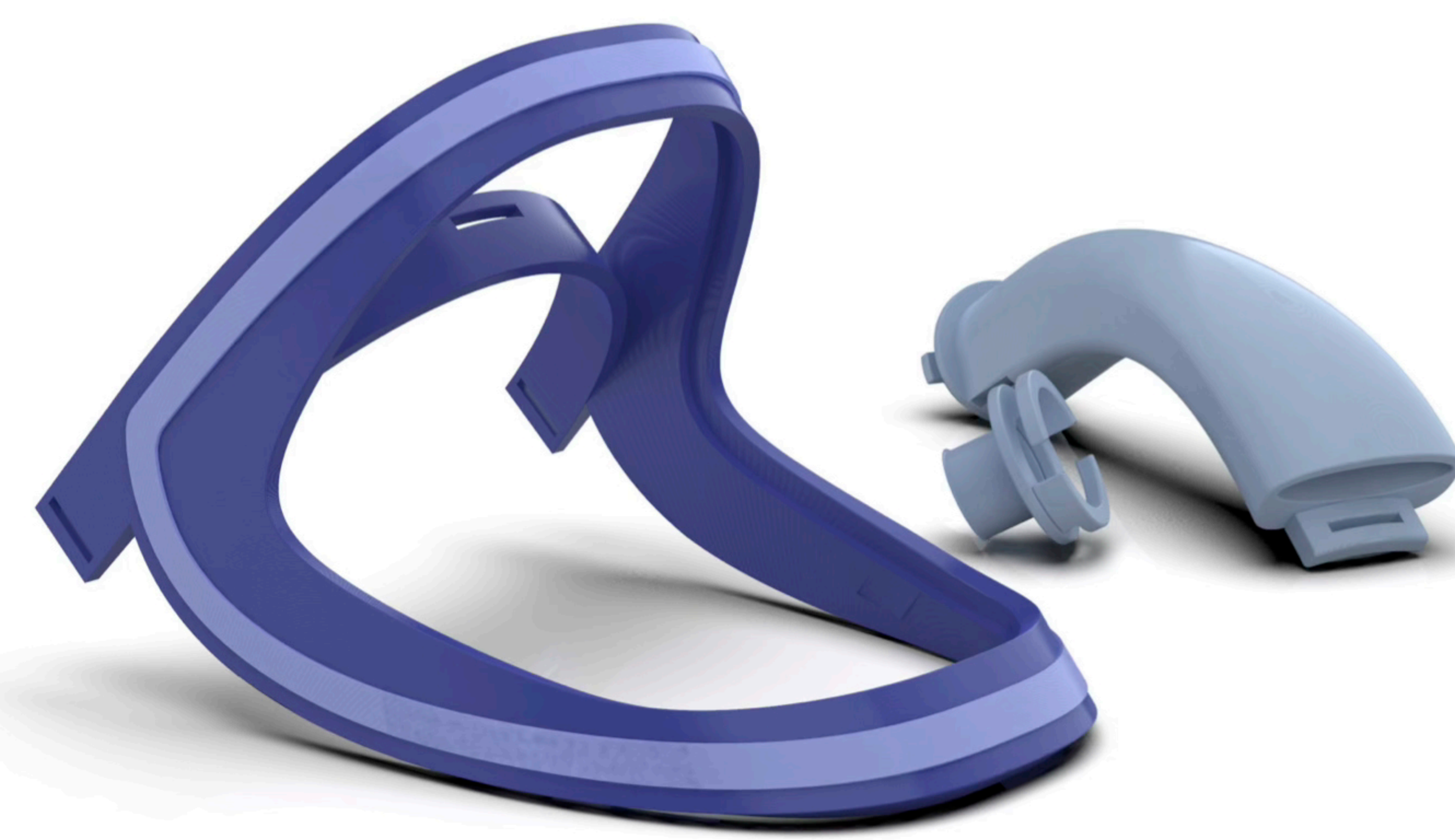
Specifically, the **frame** has been designed as structural element that ensures the correct positioning of the mask.

The other **standard components** perform the functions of isolation and individual protection, as well as introducing air into the mask.

#open source

#co-design

#sustainable development



Project guidelines

- Sanitizable
- Resistant
- Scalable
- Comfortable
- Less components

Project

The functional groups

INDIVIDUAL INSULATION AND PROTECTION SYSTEM

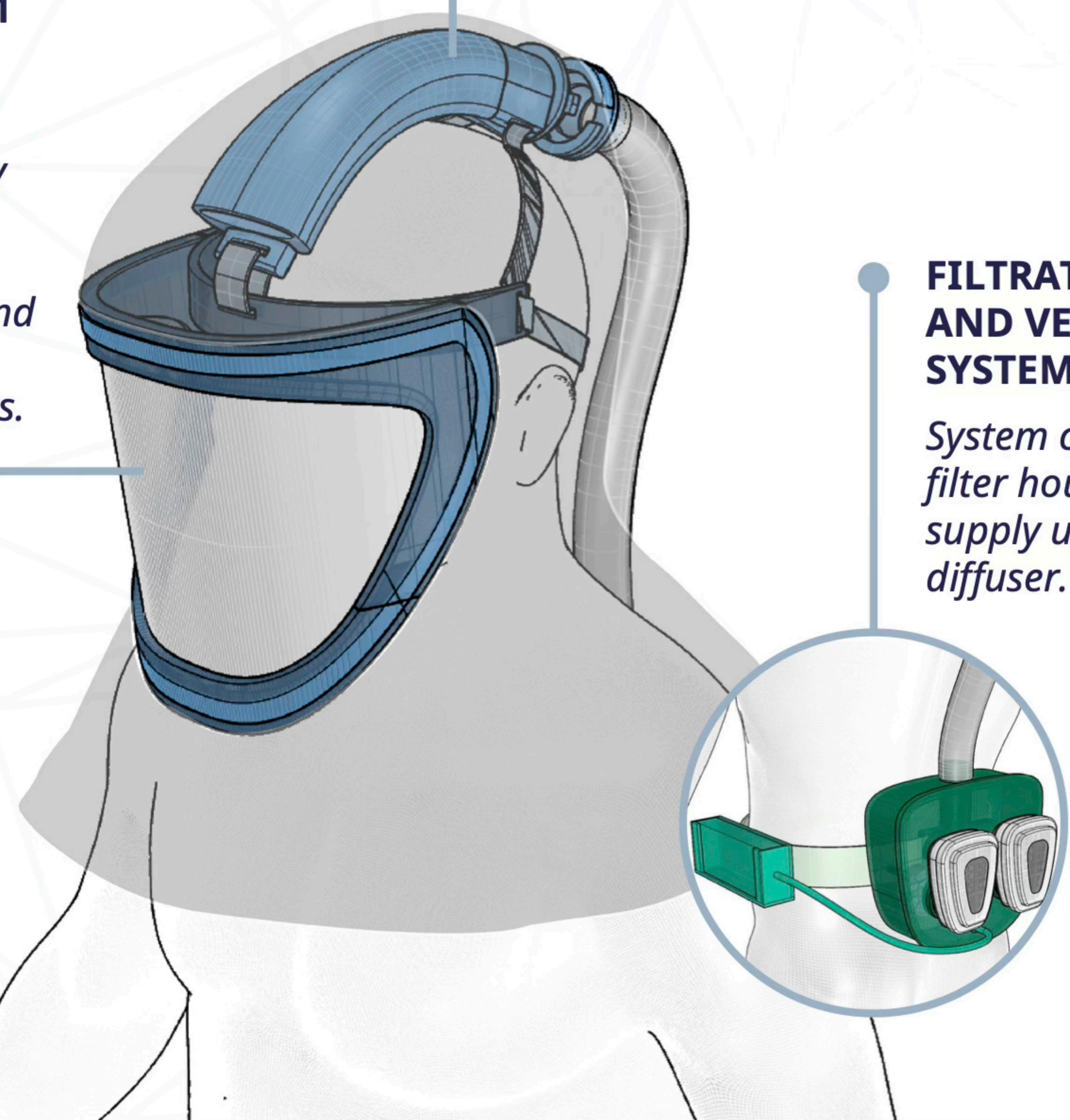
The transparent visor guarantees both protection and visibility to the operator. The insulating fabric surrounds the frame and shields the user from external contagion risks.

FRAME SYSTEM

Structural element of the mask, consisting of a front band, an upper plate and a spacer frame for the visor.

FILTRATION AND VENTILATION SYSTEM

System consisting of filter housing, fan, power supply unit, air pipe and diffuser.



Exploded view

Mask system

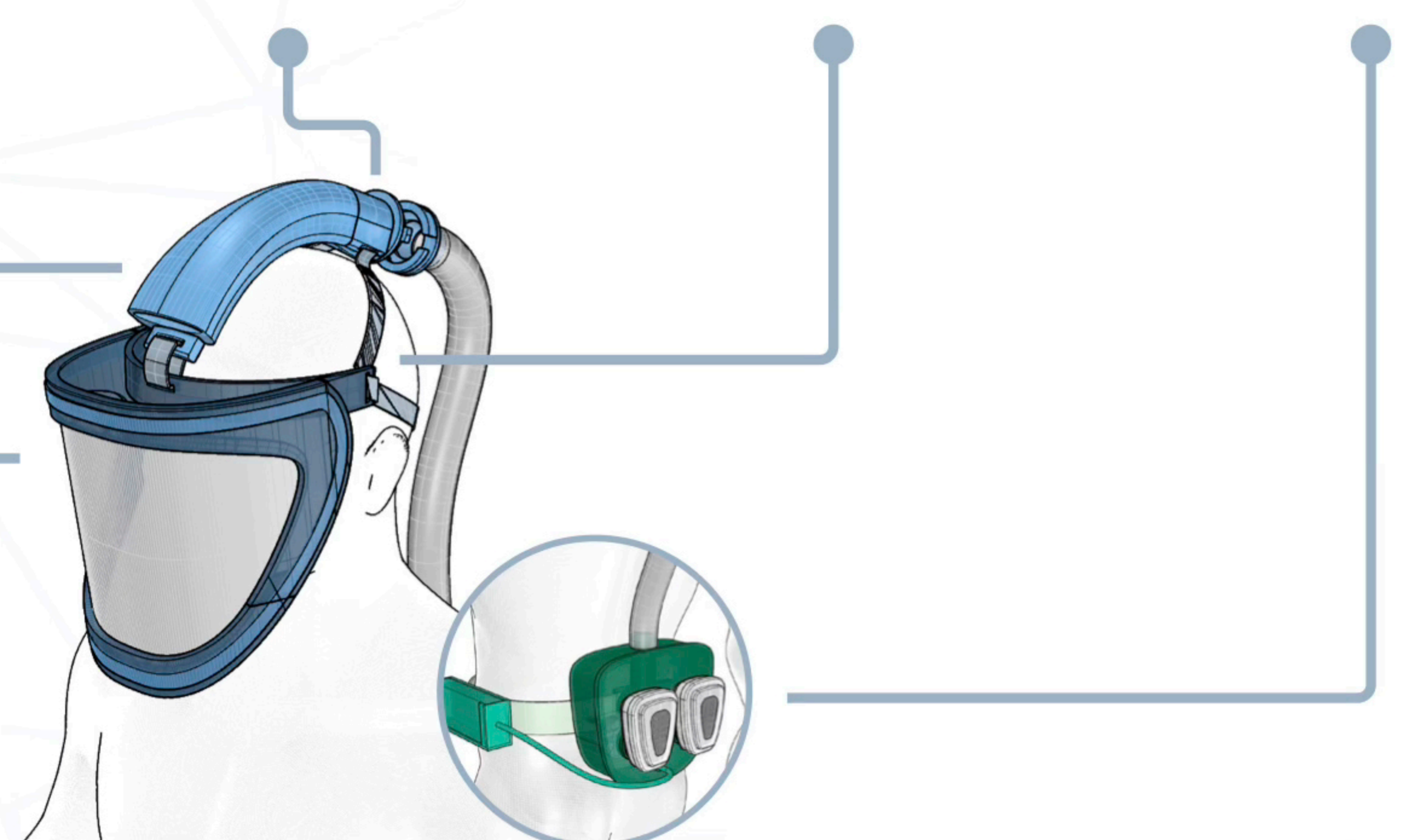
Air system



The designed components



- FRAME**: To fix the fabric and ensure the correct distance from the face.
- DIFFUSER**: For a directed and comfortable air flow.
- CONNECTOR**: To hermetically connect the two pipes.
- SUPPORTS**: To provide support and stability to the operator.
- BOX**: For power supply and air filtering.



This is us

Zefiro was born from the collaboration of a multidisciplinary team, composed of **Designers**, with different areas of specialization, and **Engineers**, who decided to join their forces to face one of the many challenges that emerged during the initial moments of the Covid-19 pandemic.

Supervisors:
F. Valpreda, F. Alessio, A. Dentis



Designers, Engineers and Makers: A. Auliso, S. Bellisario, D. Bortolotti, E. V. Bruno, A. Campanella, F. Cappa, F. Citarda, M. Gargiulo Pozzo, D. Mercenati, R. Montarolo, F. Rovera

