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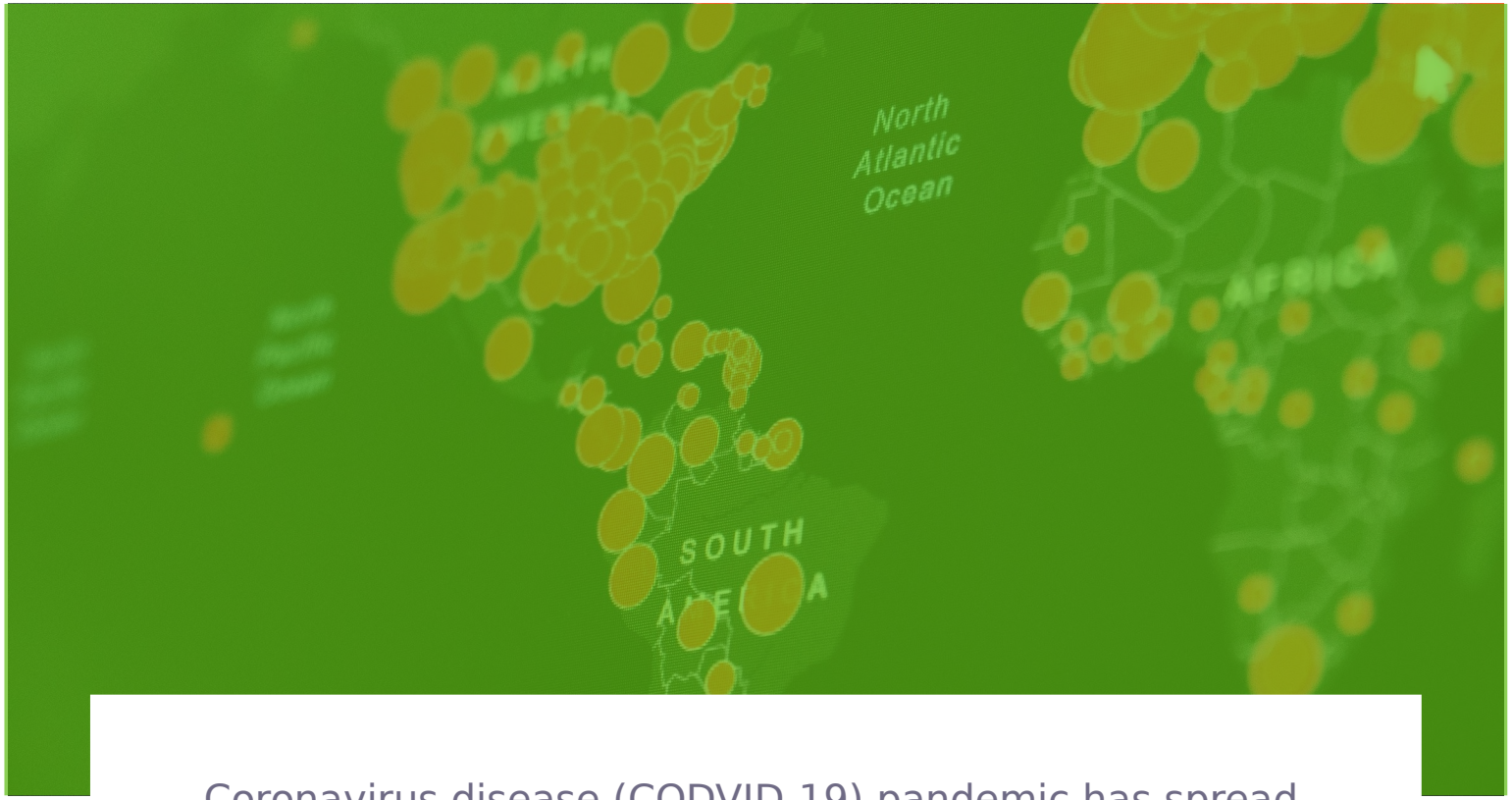

Coronavirus disease (CODVID-19) pandemic has spread rapidly, activating and emergency situation in healthcare systems worldwide

According to WHO report, roughly **14 % of infected people will present severe symptons and another 6 % may experience critical symptons.**

This context has alarmed those countries whose healthcare systems are not prepare to bear with a massive assistance demand for severe and critical cases.

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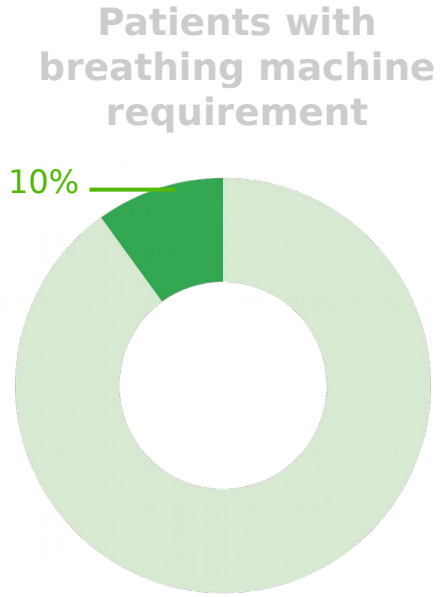
One of the most important medical supplies requiered for the assistance of critical patients with COVID-19 is a breathing machine, also known as mechanical ventilator,

The mechanical ventilator assist patients with respiratory insufficiency, helping them to move breathable air into and out of lungs.

Critical patients need artificial ventilation. In cases of severe respiratory insufficiency, the requirements of mechanical ventilators point at **10% of patients test positive for coronavirus.**



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LATIN AMERICA

Most of the mechanical ventilators for medical use are imported. Due to the current emergency context, some countries would be imposing export restrictions for these medical devises in order to satisfy their domestic demand. Hence, the Region is facing an alert scenario with the possibility of **insufficient capacity to assist patients test positive with coronavirus.**

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The initiative is born as an alternative to integrate individual and organizational efforts, from public and private sectors, bringing jointly resources, infrastructure, knowledge and experience.
Our goal is delivering a viable solution in the mechanical ventilator manufacturing for medical use that could be locally produce in Latin American countries, avoiding barriers to obtain and import this kind of devices.

GOALS

Produce a low-cost and high quality mechanical ventilator to be used in the short term.

01. **Generate open code information.**

02. **Design a mechanical ventilator available for Latin American countries, considering their current limitations of local production.**

03. **Establish a support process for the implementation.**

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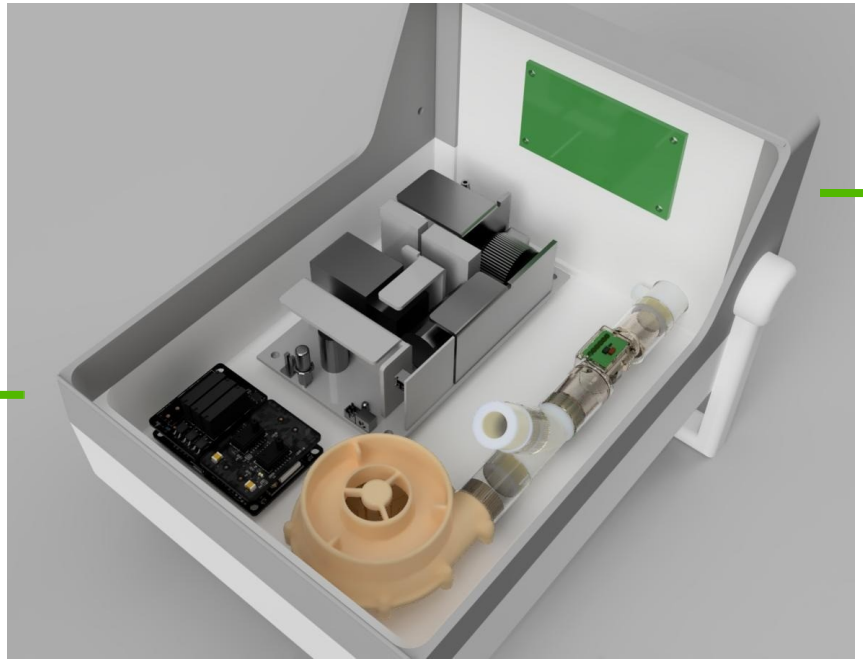
DIFFERENTIATING ELEMENT

Robust Device, from mechanical and electronic point of view..



Electronic control, Based on control card IoT Yubox Node

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DIFFERENTIATING ELEMENT

Specialized medical sensors

The use of medical grade blower, to provide the volume and the adequate air pressure needed.

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- **Openventi seeks to differentiate from craft production which have been published as emergent solutions or “war medicine” in diferent social networks.**

- **Openventi is centred on delivering a long-term solution that cuold be use in hospitals after the world emergency.**

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In addition to the above, one of the priorities is to be offered at affordable price:

$ 350 - $ 400

In contrast to the high prices of mechanical ventilators devices (between 30.000-40.000), which limits the use of them.

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To achieve it, the Design Team will focus on: 3 strategies:

- Philanthropy and joint work
- Creative design
- Economies of scale

The goal is to produce the higher possible number of mechanical ventilators.

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TEAM

OpenVenti is a community integrated by Latin American professionals which is born thanks to the iniciative of Ecuadorian professionals and scholars led by Edgar Landívar.

Today, Openventi counts on **180 members** of different techinical areas.

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TEAM

The Team is organized in work channels led as follows:

Pheumatic Mechanical
Walter Gamarra

Firmware
Carlos Villacís Blum

Mobile App Development
Ayelen Guerra

Electrónics
Edgar Landívar

Crowdfunding
Cecilia Paredes

Financing
Bianca Dager

Project Adminsitration
Edurne Quincoces

Supply Chain
José Landívar

Enclosure Design
José Vicente Cerezo

Press
Fernanda González

Communication
Paul Estrella

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COMMUNITY

In just 48 hours the project gathered more than 2000 specialists worldwide who collaborate through the Slack platform. You can consult more information in the following link:

GRUPOS DE TRABAJO

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METHODOLOGY

A multidisciplinary team with experience in research and development, both in the academy and the private sector, collaborating together in different technical domain. For this purpose, a job collaborative platform has been enabled in order to move forward in the different areas the project is organized.

Initially, Lean Methodologies will be used to develop a quick prototype, which is in charge of five leaders responsible for the development of the project in the following areas: software, electronics, mechanical pneumatics, manufacturing design and testing.

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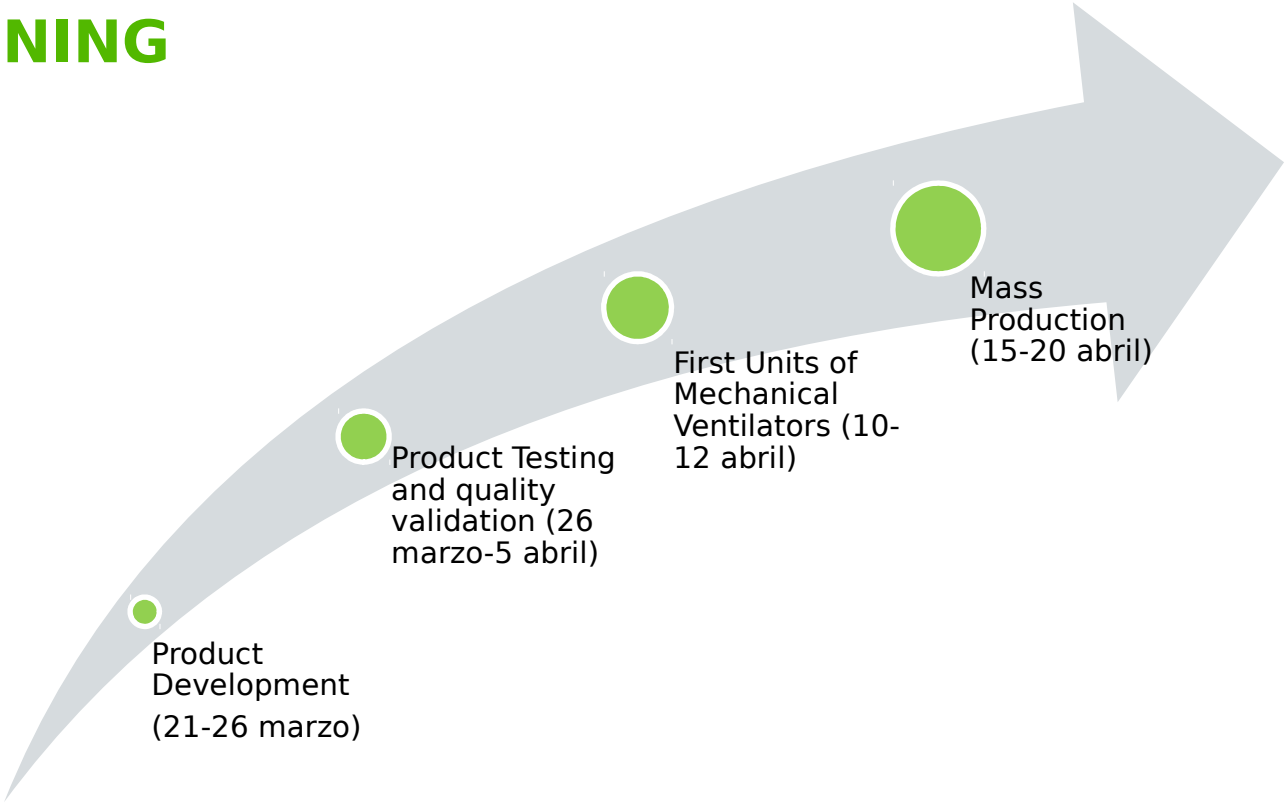
PLANNING



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BUDGET

Estimated Budget for 1000 mechanical ventilators

$ 350.000

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We are working arround the clock!
Do you help us?

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