
Clean Air Anywhere You Go



Bionic Cube is a portable, whole room, filterless air purifier that uses the same core industrial grade bipolar ionization technology found in many commercial buildings and hospitals. This simple-to-use device can help purify the air in your immediate surrounding and larger spaces beyond that. And it's completely ozone-free.

I already have an air purifier, why do I need the Bionic Cube?

Simply put, **you can take it anywhere.** Being able to plug it into a USB power source allows you to have an air purifier near you, not only at home, but also while you're **on the move, on a plane, in a car, in the office, inside a hotel room, or restaurant**, for peace of mind. Dinner for two? You'll be sitting in the "ionized" section!



From Home...



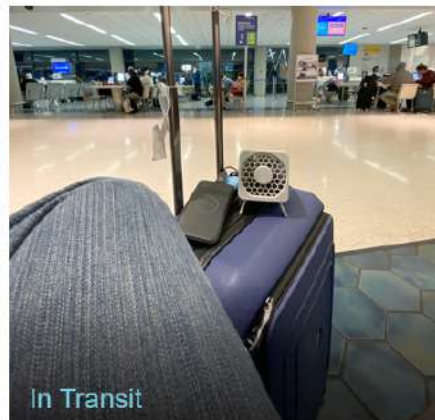
To The Car



In Your Work Space



At The Restaurant



In Transit



On A Plane

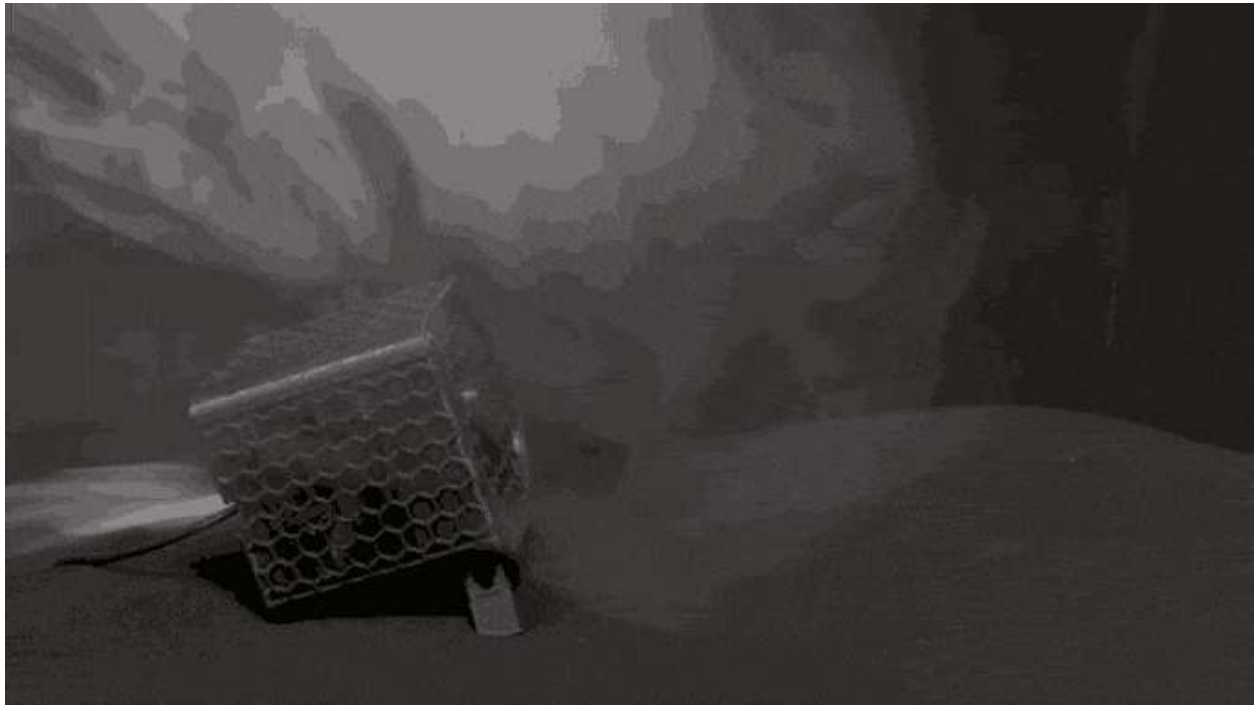
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Featured on **BACKERCLUB.co**



Small & Powerful

Bionic Cube's air purifier is powered by Plasma Air's patented bipolar ionization technology, utilizing components that have been certified by independent laboratories around the world, to produce high volumes of positive and negative ions for every room, in your home, hotel, car, or office. The very same technology has been getting installed in luxury jet airplanes since 2012.



Ionizes Air

at a rate of

60

cubic feet per minute

Purifies

a 300+ sq ft room in

10 minutes
or less

Generates

20 million +
ions

per cubic centimeter

Powered By

 **PlasmaAir**
A WellAir Company

The Bionic Cube measures just 92mm (3.6in) on a side and connects to a standard USB-C cable for power. It requires no filters, and is virtually maintenance-free. Its high-power, efficient, six-speed fan moves enough charged air particles to fill a 28 square meter (300+ sq ft) room at a rate of 60 CFM (cubic feet per minute) in 10 minutes or less.

The key to the Bionic Cube is the ionizing power. It's an ion-producing behemoth, capable of filling your breathing space with optimal levels of ions. The plasma unit inside has a **constant flow of more than 20 million ions per cubic centimeter** pouring off of the ion generator wicks.

How Does Bionic Cube Compare?

	Bionic Cube	HEPA Air Purifier	Ultraviolet Light	Electrostatic Precipitators
Truly Portable	✓	Limited	Limited	Limited
Low Energy Consumption	✓	✓	✗	✗
Produces Positive & Negative Ions	✓	✗	✗	✗
Actively Purifies (Does not wait to filter)	✓	✗	✗	✗
Does Not Produce Ozone	✓	✓	Limited	✗
99% Effective	✓	✓	✓	✓

Behind The Science

We combined superior, commercial-grade, air purification technology into a portable device.

Much like sunlight does in the atmosphere, the bipolar ionization technology installed in every Bionic Cube produces a natural, proactive bio-climate rich in positive and negative oxygen ions. The negative ions contain an extra electron while the positive ions are missing an electron resulting in an unstable condition. In an effort to re-stabilize, these bipolar ions seek out atoms and molecules in the air to trade electrons with, effectively neutralizing dirty air.



Positive and negative oxygen ions neutralize airborne particles

What are oxygen ions?

Ions are molecules or atoms that contain an electrical charge and exist in nature in various sizes. Small ions only last between 30 and 300 seconds before losing their charge, but are extremely active.

Small ion densities range from 900 to 1,100 negative ions and 1,000 to 1,200 positive ions per cubic centimeter (ions/cm³) in pristine natural environments. At sea level ion density

is typically around 500 negative and 600 positive ions/cm³. In cities and inside buildings ion levels drop by 80% to 95% and can be barely detectable in small spaces.

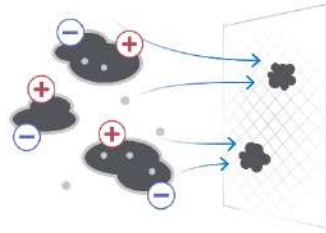


As ion density decreases, so does the air quality. By increasing the quantity of both positively and negatively charged small oxygen ions, air quality is improved. **This is the basis of the bipolar ionization technology inside every Bionic Cube.**

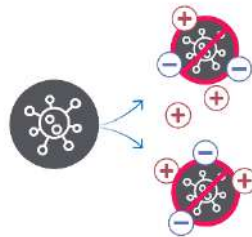
How Bipolar Ionization Works to Clean the Air of Pollutants

Much like sunlight does in the atmosphere, Plasma Air technology produces a natural bio-climate rich in positive and negative oxygen ions. The negative ions contain an extra electron while the positive ions are missing an electron resulting in an unstable condition.

In an effort to restabilize, these bipolar ions seek out atoms and molecules in the air to trade electrons with, effectively neutralizing particulate matter, bacteria and virus cells, odorous gases and aerosols, and VOCs.



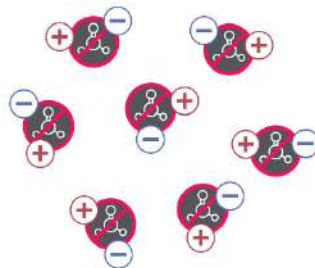
Airborne particles are charged by the ions causing them to cluster and be caught in filters



Bacteria and viruses bond with oxygen ions and are destroyed



Odorous gases and aerosols oxidize on contact with oxygen ions and are neutralized



Oxygen ions cause a chemical reaction with VOCs breaking down their molecular structure

It's Even Better With Airflow

The patent pending ion dispersion system of the Bionic Cube pulls air in from all sides, giving it **360 degrees of inlet air**. This provides maximum airflow and the best possible dispersion of positive and negative ions into your space.

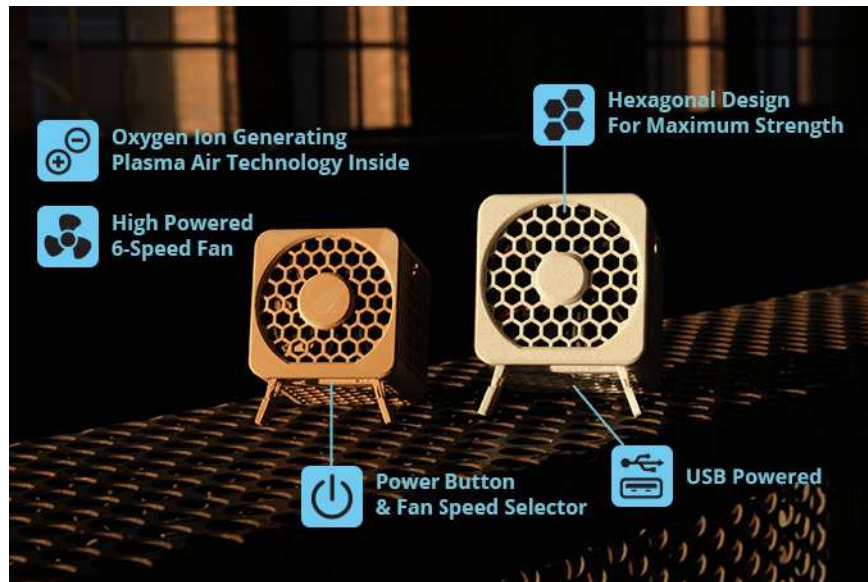


Who Else Is Using The Same Technology?

Hotels, airports, railway stations, schools, casinos, and other businesses depend on Plasma Air's technology to provide robust and reliable bipolar ionization. We have adapted the well-respected Plasma Air product into our Bionic Cube system to provide you with that same exceptional performance and ultra low power consumption.



Packed With Features



Bionic Cube features include:

- A high powered, energy efficient, 6-speed fan.
- Fan speed LED light indicator.
- Hexagonal design for maximum strength and lightness.
- USB-C power connection.
- A Plasma Air oxygen ion generator.

Super Easy To Use



Using Bionic Cube is as easy as 1-2-3, simply plug it into a USB power source, turn the power on, and select your fan speed. Sit back and relax; there are no filters or replacement parts.

Demo Video

Watch founder, Blake Haldeman, as he demonstrates how the Bionic Cube works.



Testing & Certifications

During our prototype phase, we have relied on the official lab results commissioned by Plasma Air for comparable devices in their catalog. Pending production of our finished

units, we'll be conducting our own formalized testing with an independent lab, which will be shared with our backers and included in our final documentation. These production units will also be provided to certification authorities in waiting to obtain the official FCC, ETL, and CE labels for the Bionic Cube.

Certification Process Schedule

- We are in the process of obtaining low ozone, Standard UL 867, approval for the needlepoint type ionizer used in the Bionic Cube and anticipating approval by May 2021.
- By May 2021, we also plan for submissions for CE/ETL/FCC/ZERO OZONE validations.

Patent Pending

In addition to the a US Patent Pending, we are in the process of applying for patents in Canada, Taiwan, and China.



Designed and Manufactured in USA & Taiwan



Bionic Cube to be produced with exceptional quality and at a price that fits many budgets. Our team is able to leverage its global experience to ensure a successful product launch.

Rewards

Ready to have fresh air anywhere? Click on 'Back This Project' and choose your reward.

SUPER EARLY BIRD

1 x Bionic Cube **\$150** 40% OFF
+ 1 x USB Cable (\$100 Savings)

2 x Bionic Cube **\$285** 43% OFF
+ 2 x USB Cable (\$215 Savings)

3 x Bionic Cube **\$405** 46% OFF
+ 3 x USB Cable (\$345 Savings)



EARLY BIRD

1 x Bionic Cube **\$162** 35% OFF
+ 1 x USB Cable (\$88 Savings)

2 x Bionic Cube **\$315** 37% OFF
+ 2 x USB Cable (\$185 Savings)

3 x Bionic Cube **\$450** 40% OFF
+ 3 x USB Cable (\$300 Savings)



KICKSTARTER SPECIAL

1 x Bionic Cube **\$175** 30% OFF
+ 1 x USB Cable (\$75 Savings)

2 x Bionic Cube **\$340** 32% OFF
+ 2 x USB Cable (\$160 Savings)

3 x Bionic Cube **\$487** 35% OFF
+ 3 x USB Cable (\$263 Savings)



Family Pack

5 x Bionic Cube **\$662** 47% OFF
+ 5 x USB Cable (\$588 Savings)



Business Pack

10 x Bionic Cube **\$1250** 50% OFF
+ 10 x USB Cable (\$1250 Savings)



Clean Air Matters

Air pollution is a global problem, as 2020 reminded us. We want to help solve this problem by giving you the freedom to have clean air anywhere you go.



"Even before the coronavirus, air pollution killed seven million people a year."

-National Geographic



"Exposure to severe urban air pollution influences cognitive outcomes, brain volume and systemic inflammation in clinically healthy children."

-PubMed.gov



"Half the world's population are exposed to increasing air pollution."

-Nature Partner Journals



"Air pollution puts children at higher risk of disease in adulthood."

-ScienceDaily

Product Timeline

2020

- Jan  Built freestanding wall plug units
- Mar  Developed design for portable handheld units
- Jun  Company registered & built first Bionic Cube
- Jul  3D designed Bionic Cube for 3D printing & first model built
- Aug  Began patent application
- Oct  Patent pending status obtained
- Nov  Arrived in Taiwan to work onsite with production facilities
- Dec  Modified Cube and PCB to run off 5V USB-C connection

2021

- Jan  Cube model finalized & began validating physical prints
- Feb  Ordered first final product test units, moulds, and early edition for certification
- Mar  **Kickstarter Launch**
Initial mass production expected
- May  Obtain low ozone, Standard UL 867 approval
Bionic Cube submission for CE/ETL/FCC/ZERO OZONE validation
- Jul  Early editions of certified Bionic Cube delivery begins
- Aug  Deliver of certified Bionic Cubes from mass production begins

Meet The Founder



Blake Haldeman, Founder of Bionic Cube

Meet Blake. After almost 10 years in the professional aviation sector as a pilot, director of fleet maintenance, and private consultant, he pivoted his career while the aviation industry recoiled from the impact of 2020. He built upon his experience in aviation mechanics and technology to help with the problem that he observed first-hand in the now deserted airports, **"People needed access to a portable IAQ (Indoor Air Quality) improvement solution with real performance and function."**



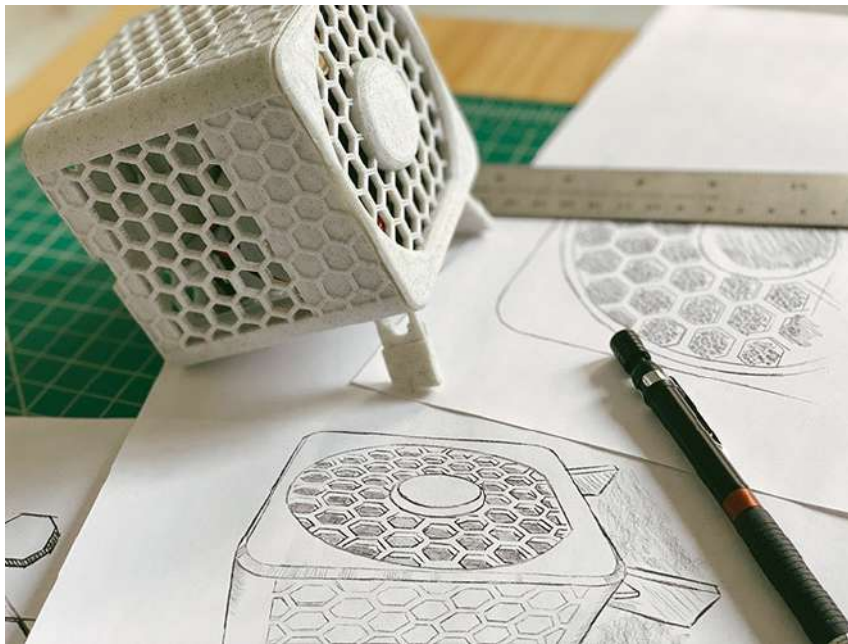
Blake and his dad developing the Bionic Cube

With the idea that **everyone deserves access to cleaner air**, he turned to his father, a fellow Gulfstream engineer, and began their startup to produce the Bionic Cube filterless air purifier. They drew on their lifelong experience as a father and son team including many years of working together on different bipolar ionization projects.

Our Story

The story of the Bionic Cube goes back to 2012. Our team of aviation engineers were involved with installing some of the first bi-polar ionization devices into private aircraft. Over the following seven years, we watched as the installation and retrofitting of air conditioning systems in aircraft and public buildings using this technology became more understood, widespread, and proven.

In 2020, worldwide awareness of the need for better indoor air quality intensified. We naturally pivoted to our experience in this area. In January 2020, we started designing the first Bionic Cube prototypes.



Sketches of the Bionic Cube

Because of the solid reputation and long legacy of laboratory-backed ionizers, we leveraged our previous experience and knowledge of this technology. Using available off-the shelf components to house the plasma ionizers, we produced the first Bionic Cube concepts.



Our first prototype with a handmade metal housing



Our second prototype made with an off the shelf plastic case



Different versions of prototypes

It was a moment of success to have our first portable unit! We rushed these prototypes out to family members involved in healthcare, as well as those with health conditions. In those quarantine and lockdown times, we weren't content to sit by idly when there was a clear opportunity for us to help improve indoor air quality.



Detailed CAD 3D model which shows the rubberized areas in black, The rubberized areas will match the color of the cube in the final product.

The impact was immediately obvious. Our family noticed a measurable improvement in the air quality inside their homes. But, we couldn't stop there! We continued to refine the design and materials to bring the very best solution to market.

Special Thanks

To all of our Kickstarter Backers and Supporters.

Thank you to everyone who has supported us and those who will support us into the future.

Thank you for believing in us and helping to improve indoor air quality, worldwide.

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www.bionic-cube.com



Risks and challenges

There are two main risks for the production of the Bionic Cube. The first one is manufacturing capacity. Due to constraints put on shipping and factories worldwide, global supply chain of components can be affected. We plan to work closely with our manufacturing partners to mitigate this risk as much as possible. We have simplified our design to create an easy to manufacture and assemble product, as well as communicating with our partners at Plasma-Air for a confirmed purchase of key components. The second risk is obtaining ETL, CE, and FCC labeling. This process is highly dependent on the backlog of products before us, as well as internal processes and procedures. We plan to mitigate this risk by getting units into the testing pipeline as soon as possible, directly from our factory. We also have experience in labeling prior products, so our familiarity with the processes & procedures involved will help to ensure that units get into the hands of backers as quickly as possible.

[Learn about accountability on Kickstarter](#)

Environmental commitments

[Visit our Environmental Resources Center](#) to learn how Kickstarter encourages sustainable practices.

Long-lasting design

We have designed the Bionic Cube with Long Lasting Simplicity in mind. There is no internal battery in the cube and our Power control boards, fans, and plasma units are manufactured to extremely high quality standards with long life expectancy. The body is molded ABS which is extremely durable, heat resistant. We have also given everyone the ability to open the face of the Bionic Cube and clean off their fans to help keep things clean and running for a long time.

Reusability and recyclability

We are manufacturing the Bionic Cube body from ABS plastic, which is a fully recyclable material. In the event parts are damaged or broken when units are sent in for return, the components will be recycled if they are broken. However the Bionic cube is partially assembled with screws where possible which minimizes waste when opening the product for repairs.

Sustainable materials

A transition to fully sustainable materials is part of our long term goal. For now we are utilizing as much recyclable material and minimizing our footprint.

Environmentally friendly factories

We plan to work with factories that utilize eco friendly practices in order to reduce their environmental footprints.

Sustainable Distribution

We will be utilizing the most environmentally friendly freight and shipping services possible from port to port, and from port to final delivery address. We at Haldeman Services LLC, Bionic Cube's parent company believe in protecting our shared environment, and will leave as small of a footprint as possible when bringing the Bionic Cube to your door.

Questions about this project? [**Check out the FAQ**](#)