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CEOKID Spotlight: Meet Teen Inventor Manish Rangan

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Your product-based company, UVSET, created SAFETouch using UV-C technology. What is SAFETouch? What problem are you solving?

UVSET SAFETouch, at its core, is a door handle sanitizer. According to a University of Arizona study, if an infected person walks into a traditional office building using their door handle, up to 60% of people in the building can be infected within just two to four hours.

Likewise, research has shown that without constant encouragement, hospital workers wash their hands only about 40 percent of the time and that within just a few hours, viruses can spread to 40 to 60 percent of workers or visitors in a facility from just one contaminated door handle – for a hospital, that could be the difference between life and death for the ill patients. Additionally, influenza causes 40,000 deaths in the US, with nearly all being senior citizens due to their significantly weaker immune systems.

The problem is clear – door handles are one of the largest spreaders of diseases in your households, workplaces, shopping centers, etc, and therefore must be targeted in order to keep people safe.

Tell us more about UV-C technology & how your product works. Traditional sanitization methods simply do not cut it anymore. It is very important to take human and environmental safety into consideration, as the CDC reports that the overuse of chemical disinfectants such as glass cleaners and bleach can lead to medical concerns such as skin irritation, respiratory irritation, and allergic reactions from the user.

This dangerous overuse is a trend that is growing immensely, due to fear and anxiety inspired by the COVID-19 pandemic, production and consumerism of chemical disinfectants have increased by over 500% since 2019. Moreover, the ecological impact of chemical disinfectants is staggering.



In fact, The Marine Conservation Society reported that in 2014, the number of wipes found on UK beaches had doubled from previous year.

And following all of this research, Team UVSET decided to utilize UV-C technology to solve this problem. UV-C, also known as germicidal UV, includes wavelengths from 200-280 nm. Radiation at this wavelength is great for killing bacteria and pathogens, (killing up to 99.99%), so with the impending danger of the COVID-19 pandemic, Team UVSET became motivated to bring the world back to normality, devising a patent pending, UV-C based sanitization product that fits many types of door handles.

UVSET SAFETouch has an innovative modular ring containing the UV-C light, which using a motor, moves up and down along the touch surface of the door handle sanitizing it entirely within just a minute.

Additionally, UVSET SAFETouch has an eco-friendly design and has near zero UV light leakage, making it safe for both the user as well as the environment. It comes with a double rechargeable battery lasting up to 27 days and a “Do-It-Yourself” installation process.

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What inspired your team to form UVSET Inc.?

Our team is made of four high school students (Hisham Ahmad CMO, Humza Sheikh CTO, Vihan Yerubandi CFO, myself CEO) and one college graduate (Aiman Khan COO). We are all graduates of the DiscoverSTEM program, where we learned to become better innovators.

As part of this program, we designed, innovated, and filed a patent for the concept of UVSET SAFETouch. Then, because of the impending danger of the pandemic and COVID-19, we decided as a team to commercialize and bring our innovation to the market, thus founding UVSET Inc (UV Sanitize Every Touch). While SAFETouch is our first product, we do not expect it to be the last, as our goal is to Sanitize Every Touch in order to limit the spread of germs and viruses as much as possible.

Designing and building your own technology based product seems like a huge undertaking. What are some of the challenges you have faced as a young inventor? How are you overcoming those challenges?

The two biggest challenges that I constantly face are my lack of experience and the fact that many people don't take my ideas seriously due to my age. But, the best way to combat these challenges is to find a way to turn them into strengths.

Yes, I'm inexperienced. But with that inexperience comes a greater hunger and desire to succeed than those who have already done it all. Additionally, Team UVSET has a great team of mentors and advisors backing us.

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UVSET also received funding from Kubera Capital to launch UVSET SAFETouch, which brings us further legitimacy. And yes, many people don't take me seriously due to my age, but being a young innovator, there are so many great opportunities I can capitalize on. This magazine is proof of that. It's not every day a 16 year old starts a product based business to create a societal impact.

What's the next step for UVSET Inc. to bring SAFETouch to market?

Just to give a bit of a status report, we have (as of July 18th) successfully completed the testing of the second-generation prototype of UVSET SAFETouch. The next immediate step is getting our kickstarter crowdfunding campaign ready, which will then finance our product launch in early fall of 2022.

Our team is putting a lot of effort into our pre-crowdfunding activities such as marketing, increasing product awareness, social media forums, in-person product pitches, articles, magazines and more.

We want to launch the product for all potential customers. In the US, there are about 23,000 pediatric offices and about 16,000 OB/GYN offices. High risk patients such as sick children and pregnant women frequent these areas, making them a massive part of our target demographic. Additionally, assisted living and nursing facilities are a growing market for UVSET. 10,000 Americans turn 65 every single day.

What advice do you have for other young inventors who want to build their own product-based businesses?

The biggest piece of advice that I have for young innovators is simply to go for it. Be ambitious, be hungry, and most importantly, don't be afraid to make mistakes.

So many people (especially at my age) have had incredible ideas but haven't gone anywhere with them because they were deterred by everything that could possibly go wrong.

Rather than focusing on what could go wrong, focus on what can go right, what you can go on to achieve should you be successful. Of course, if I was more experienced and never made mistakes, UVSET SAFETouch could have hit the market earlier.

But with those mistakes has come that coveted experience, experience that will help me in all facets going forward. I think that is the biggest thing that young innovators should know.

Learn more at www.uvsetinc.com

