

[00:00:01] Richard Miles: Inventivity. What does it mean? The state of being inventive, creating or designing new things or thoughts? Hello, I'm Richard Miles. Welcome to The Inventivity pod. Join us as we speak to inventors, entrepreneurs and visionaries who are using inventivity to change the world. They will bring us alongside their journey as they share their personal stories from start to finish, including the triumphs, the failures, and everything in between.

[00:00:30] James Di Virgilio: Welcome. I'm your host, James Di Vergilio, and welcome to our Smart home series, a look at what it is, who's involved, and what the future may look like thanks to inventivity. Our guest today is Akshay Bhuva, the founder and CEO of Kitchenery, a company focused on transforming the kitchen appliance industry through their proprietary wireless power transfer technology.

Akshay has a background in materials and mechanical engineering from Washington State University and University of Tampa. He was a winner of the 2021 Opportunity Coachella Challenge, secured \$120,000 from One Tech Stars, and won first prize for companies from the Spartan incubator at the new Venture Expo at the University of Tampa. Kitchenery was also one of the top 25 startups to watch in 2023 in Tampa Bay and a Fibonacci finalist here at the 2023 Cade Prize Innovation Award. A lot of good stuff going on. Akshay, welcome to the show. I'm looking forward to talking Kitchenery with you.

[00:01:26] Akshay Bhuva: James, thank you for having us. At Kitchenery, one of our sole missions is to holistically transform and improve people's lives with the world's best cooking experience. Bridging technological gap between cooking experience and how we use the space is something I'm really personally passionate about. And I'm happy to engage in a conversation with you and talk anything and everything about the storm in the technology world, innovation and consumer appliances, innovation and consumer technology, and how can the future seamlessly blend in, let's say the heart of everyone's home.

[00:02:05] James Di Virgilio: And a kitchen is definitely the heart of everyone's home. So, I think for all of our listeners today, of course, they can imagine themselves in their own kitchen, and talking about food is often something that's pleasant to talk about. You just mentioned the word blend. Let's start by orienting people to what Kitchenery does by just using the common household blender, something that you yourself have been improving.

What are you improving? If I go in my house right now and I have my blender, it's plugged into the wall, I put my stuff and I press the power button power. I get what I need. I'm good. What are you improving in that process? What's going to make that better?

[00:02:37] Akshay Bhuvra: I would say taking a step back kitchen in the American household is something that you will agree, it gets the most amount of foot traffic. And like, how you said, it is the heart of everyone's home. And cooking is mostly an emotion. And talking more about the blending, what we are at Kitchenery, what we're really doing is we're developing the world's most silent blender. Couple that with powering without the use of cords and making it completely wireless. Imagine you just pull up your blender, put it on your countertop, and it fires up. It's 2024. If you see all the other industries, you know, just taking example of EV's and automobiles, electric car can pass, you know, this gigantic vehicle can pass next to you and you won't hear anything. But here we are inside your home, inside everybody's kitchen, and you turn on the blender and sounds like a rocket engine. The innovation cycle in the space has been overlooked for two decades now. We're still using the same old power cord, we're still using the same motor and blending technologies. And at Kitchenery, this, what we are doing is holistically transforming, number one, the appliances itself. And number two is how people actually interact with it, making it more convenient, more socially welcoming, and more accessible.

[00:03:59] James Di Virgilio: So, speaking of the blender, then specifically, you had mentioned a couple of things. Is the blender the kitchen area is making, is it cordless? And how does it get energy to power itself?

[00:04:09] Akshay Bhuvra: At the gist of Kitchenery's technology, our core innovation is in the space of wireless power transfer technologies. So, imagine how you recharge a cell phone without the use of cords. You put it on a pad, and it powers. What we have developed is a technology that is 100 times more powerful than traditional smartphone charging. So, we are launching what we call is the quantum energy pad. And this is sort of a pad that you place on your countertop, or it is flushed within your countertop. And anytime you want to power a small kitchen appliance, you just placing on top of it. That's how the magic happens. We'll start working. Just this past week, over at the inspired home show, we actually launched the generation two of our wireless power transfer technology, coupled with a fully functional blender and our very first cordless kettle. So, we are on a

mission and we are on a goal to launch our first three flagship products in hyper targeted market segments.

[00:05:10] James Di Virgilio: And along. And that's. Yeah, congratulations. On that, by the way, we'll talk about where listeners can find your, I think you can reserve right now, last I saw on your website, products for the future, if you want to be one of the first to get one of these, but with that pad, then it sounds like to kind of close the loop here, I'm going to have a pad on my countertop that has to be plugged in somewhere, I imagine like a cell phone charger would be. I could build that in so it's plugged in where no one sees it. Or I can maybe even set the pad out on the countertop, plug it into the wall. But then I can take an appliance, like a blender that you have created, sit it right on top of there. No cord, no wire that will power it. That will work every single time. I just. If there's really no cord visible, again, if I. If I build it flush in, and that's going to power a variety of devices, will this potentially power the entire kitchen one day? Will everyone have sort of an electric countertop, if you will, that's both form and function.

[00:06:01] Akshay Bhuvra: Our long-term vision is to electrify consumer kitchens and make them, number one, completely cordless. And also, number two, transition to more effective and sustainable cooking activities. You know, traditional cooking methods. Currently, they are gas and electric. They are, I would say, you know, roughly about only 60% efficient. What our technology can also do is do hybrid induction cooking. So, you can put a pan or a pot on the same pad and you can, you know, do inductive cooking. And the core benefit about Kitchenery's hybrid induction technology is that it is 40% more energy efficient compared to traditional cooking methods. So, let's take an example of gas cooking. Whenever you're using gas to cook, number one, it's a combustion activity. So, there is indoor pollution. And number two, roughly about 35% to 40% of the energy is wasted in the atmosphere and it's not transferred in the cooking vessel itself. And that's why you observe, when you're using gas, you observe a rise in temperature in your closed kitchen space. And on top of that, add the extra cooling that your air compressors have to do in order to compensate with that atmospheric heating because of using gas and electricity. So, that's eventually the long-term vision is to completely electrify the kitchen countertops, make them hybrid induction compatible, and one day you will have all your kitchen devices that seamlessly, you can power them without the use of force. Just put it on your countertop and it works.

[00:07:39] James Di Virgilio: So, it sounds like at Kitchenery, you're innovating several things. Let's talk first about what is the engine? I think of this, what you mentioned already, the Quantum Energy Pad. Has anyone else created a pad this powerful? Was this a breakthrough technologically to take, like you mentioned, what I think many people are familiar with a wireless cell phone charging pad and make it, like you said, 100 times more powerful? Were you and your team the first to do that?

[00:08:03] Akshay Bhuvu: Actually, we are one of the, you know, the pioneering companies in this space. This is a breakthrough. There has been over three years of research and development into commercializing this technology. One of the core challenges in the space of WPT, wireless power transfer, is from the perspective of safety, how is it going to interact with other foreign objects in close vicinity of the wireless power transfer action? So, let's say you're putting a knife or a phone or somebody with a pacemaker inside their heart. Is it going to interact with it? How can we create a solution that just encompasses the two objects, the transmission device and the reception device? And this is the critical challenges that the industry is facing. And we were able to solve it not only, you know, with our proprietary technology in the space of smart frequency modulation, but also from the perspective of amount of power transfer. The existing technology that is commercially available is about 50 watts in cell phones. And our system can do over 1200 watts of wireless power transfer.

[00:09:10] James Di Virgilio: Wow, so that's a true technological breakthrough. And on top of that, you're also designing brand new kitchen appliances, right? You're not just taking a blender that exists. You had mentioned wanting to make a quiet blender, so you are essentially pioneering multiple things in the kitchen all at the same time. What have some challenges been for you undertaking, you know, multiple, let's call it sort of ambitious and pioneering endeavors?

[00:09:37] Akshay Bhuvu: Honestly, technology is hard. Integrating a technology in a consumer product is even harder. Commercializing this, it requires a whole lot of passion, persistence, a lot of blood and sweat and equity. You know, this has been, I would say, a long-term vision of mine to holistically transform the cooking experience. In addition to that, the one thing that I also observed, you know, while developing the technologies, is that even the existing, you know, the product design and the functions and features that are currently available in the SDA, small domestic appliances, it's very, very crowded. Let's

take an example of a microwave oven, the microwave oven, you know, control panel. It comprises of over 15 different buttons. But based on our research on both talking with homeowners, talking with people who use microwaves, more than 90% of the individuals we interviewed, they mentioned to us they hardly use the four different features that are available in there. And there is the quick 30 second button. You continue pressing it and the timer feature, but that's pretty much it. Nobody is using the popcorn feature in there. Nobody's using baked potatoes. You know, all of that crowded control panel that legacy companies think that more features means more valuable product. I would say it's a myth now. And that's why we are at Kitchenery. We are focused on modern and minimalistic appliances and only providing on the features that people really want to use.

[00:11:11] James Di Virgilio: Now speaking of the products you mentioned, you obviously have those. Actually, you can see Akshay's creations on his website. What is the website and where can people find what you're creating ,and even purchase them, on reserve?

[00:11:24] Akshay Bhuvu: People can find our products on our website, Kitchenery us. We are currently taking pre orders and onboarding the very 1st 10,000 futurists who are going to adopt to Kitchenery lifestyle. And yeah, they are currently available for pre order. Like I mentioned earlier, we are currently starting our production facility and production lines for our flagship products, the quantum energy pad, the blender and the kettle. Down the line we will continue to start launching more and more compatible products that go with the quantum energy pad.

[00:11:53] James Di Virgilio: And speaking of commercialization, I know obviously for a company that's been at this now as you have been for a while with the tech behind you, has it been difficult to get adoption from investors or from big box retailers or from places that might want to sell your product? Have you had a hard time overcoming that? Or where are you essentially in the commercialization stage? It sounds like right now you've got a direct offering to the public through your company. But maybe what are some of your plans? What are some of your thoughts and what have you faced in the commercialization arena?

[00:12:26] Akshay Bhuvu: Commercialization is definitely challenging. Retail is very, very price sensitive. Considering that we are in early phases of product commercialization, we're setting up our factory and production lines. The per unit costing for us is very, very

high right now. That creates a challenge from the perspective of product and the market fit. So, that's why we're launching our product offerings in hyper targeted premium segments. For example, the premium recreational rv, marine, private aircraft, luxury hospitality chains, and eventually at economies of scale. When we are able to bring the per unit cost down, we will tap into the retail segment as well. So, currently retail is not in our strategy, but eventually in year two, year three, that's when we foresee that we will cater the mass market segments.

[00:13:22] James Di Virgilio: Yeah, that makes sense if you think back, obviously, to flat screen televisions way back when, right. Originally, they were very, very expensive and they weren't going to be at your Best Buy retailer. And then eventually they became ubiquitous. You had mentioned some applications in rvs, boating, airplanes, et cetera. Let's just take an rv for an example. How does this improve your Kitchenery products? How does that improve the experience of someone with an rv? Why might they want this instead of what they currently have?

[00:13:47] Akshay Bhuvu: If you have been in an rv, you will agree, every inch is of great importance. Right. It's a very, very tight location. And both rv owners, rv manufacturers, oems dealers, the whole spectrum of people in this industry, they are looking for solution on how to maximize the spatial utility. You know, small space innovation, efficient storage, is some of the things that are the two core things that we saw in the rv. So, imagine a bookshelf model where you're pulling off a book from a shelf and there is an exact location, a cavity that you see there. It's a similar analogy for rv cabinet. You know, you remove the appliance, number one, it's modern, minimalistic, and compact. It also is stackable, so it can easily fit in small rv cabinets, and they're completely cordless. So, you know, you just remove it from your small cabinet, put it on your countertop, and it works. It's great for maneuverability and storage. These are the core value propositions that we provide in the recreational rv segment.

[00:14:48] James Di Virgilio: Yeah, that makes a lot of sense. Anyone who's done rving has probably experienced taking a turn, either having cabinets open and stuff flying out, but, you know, not having cords actually saves a tremendous amount of space in and of itself. And then, as you mentioned, the pad can both cook, heat something up, as well as run appliances. So, it's multipurpose in one facet. Yeah, that seems like an excellent application, for sure, and an exciting use of a new technology.

Let's talk a little bit about your journey with Kitchenery. When did you first start Kitchenery? And then how is Kitchenery different today from how perhaps you first envisioned it when you started?

[00:15:25] Akshay Bhuva: It's funny, my journey with Kitchenery actually started in my own kitchen during COVID. So by profession, I'm a materials and mechanical engineer. I previously used to work in automobile company doing research and development on their front end, rear axle, autonomous systems, on electric tractors and road rollers and things like, you know, heavy commercial equipment. And during COVID I actually started working from my home. That's when I started using my kitchen space a lot more, and I was living in Milwaukee, Wisconsin at that time in a one bedroom apartment, and, you know, there were two power outlets and I had like, you know, seven different appliances, you know, in that small little corner. And I realized it's not just, you know, the best experience. And, you know, that's when I started to explore solutions around, you know, how can we improve experience? And at that time, I got an opportunity to go in a, I would say it was more like, you know, come put your idea and, you know, we'll mentor you kind of thing with the organization called Generator. And that's when, you know, I used some of my engineering knowledge and developed very, very early product concepts, early technology validation that is it actually feasible to do any kind of wireless power transfer and things like that? At that time, really my goal was to develop recharge solution for, you know, ubiquitous, all kinds of electronic devices that you can just place it on a pad and they start to work. But eventually we narrowed it down to the kitchen space. We validated certain industry segments. In what areas is there a need for this technology versus is this just a want for an ideal customer and a consumer? And, you know, eventually down the line I got an opportunity to come and study at the University of Tampa in their masters in entrepreneurship program. So, I got accepted in their Spartan incubator, Spartan accelerator program at UT. I was able to form the holistic business model for Kitchenery, and I was incubated there for more than a year. We had our office space. I started building my team. I learned how to pitch concepts and versus pitching a company, I learned how to raise funds. We eventually got into TechStars, which is, I would say, really the top three pre seed accelerators around the globe. And we raised our first pre seed venture funding. Using both financial and advisory resources from TechStars, we were able to develop the generation one of our core technology. This was back in late 2022. Last year we worked on developing the generation two of our technology and pretty much working on developing it so we can make it ready for technology certification, CE FCC UL work on humanizing it so, you know, doing the exact amount of power in real time, showcasing the technology in public forum, integrating the power receiving technologies with host consumer electronic

devices. You know, obviously, for example, keto and Blender that we currently have, that we have showcased in multiple shows. For example, Synapse innovation, The Inspired Home Show, the Techstar startup weekend that was, you know, earlier this month, and obviously the Fibonacci series last year. When we participated in that series, we were at a stage where we had just showcased the functionality that, okay, we can transfer over 1000 watts of power wirelessly. And since then, we have done a lot of work in the space of coil engineering, doing some research and development on EMI solutions, integrating of proprietary foreign object detection protocols, optimizing our smart frequency modulation firmware, things like that. And pretty much this year, our goal is to develop generation three production level technology. So, over the course of these years, I would say the product development, technology development, the venture execution journey has been fraught with challenges. But at the end of the day, we are a company which is mission driven. We are fueled by a passion to revolutionize how people interact with their kitchens. I would say our dedication really goes beyond technology and commercial success. It's really about creating a positive impact on everyday life through technological innovations, and this is really what we care about.

[00:20:04] James Di Virgilio: Yeah, I mean, obviously, again, you, working on it have worked on a lot of stuff. A lot of our listeners themselves are innovators and entrepreneurs. Funding is always a big topic. Given that you have, from your story, consistently been working on product development, how were you able to obtain funding from being an incubatee throughout the process? Now, what were some of the methods you utilized?

[00:20:26] Akshay Bhuvra: Funding has always been. It's challenging for entrepreneurs, it's challenging for especially first-time founders like me. I've always been on a battle with VC's, with potential investors, angels, high net worth individuals. And the number one thing I am a big fan of is traction. Traction from the perspective of product development, traction from the perspective of technology research and development potential, two b partnerships, market traction, pre order traction, all of that. I would say fundraising is mostly two different pieces. Traction and your venture execution story and how you put those together in order to convince somebody to believe in you and your vision to commercialize something. So, over the course of past three years, we have done multiple angel rounds, VC rounds, fundraising rounds, and, you know, we're still raising funds, right? We, like I mentioned, we are currently in the works to open, you know, our own production and assembly lines. And that requires high amount of capital investments in the beginning in order to even start production. You know, there is tooling, there's

machinery, we're working on a physical hardware product. So, you know, working with suppliers, establishing a global supply chain, taking into consideration about all kinds of different geopolitical situations. I would say it's challenging, but the starting point, my personal rule of investments really is involving friends, family, resonating with them, deeply resonating with the market, resonating with the customers. And as long as you are on that path, money is out there. You just have to find the right people at the right time.

[00:22:16] James Di Virgilio: Yeah, and your family from India, you're from India, you grew up there, right? And they're a family of entrepreneurs. Did you find it easier to be able to perhaps pitch your own family and friends since they understand maybe more than others about kind of the creation and innovation process?

[00:22:30] Akshay Bhuva: You know, I'm fortunate that, you know, I come from a family of entrepreneurs. I didn't come with the wealth and facilities and things that are easily accessible in the western world. So, that really helped me prepare myself for more harsh environments, rejections, things like that. From the perspective of my personal friends and family supporting me, they were the first people that actually believed in me, and I was able to accumulate a little less than \$100,000. And that was the starting point for Kitchenery. Using those funds, we developed the very early phases of our product concept. After that, we started pitching to more established pre seed vc's and angels. We did a second round then we did, because we are consumer technology and at the end of the day, we're developing a brand that resonates with people in the kitchen, we collaborated with a public offering platform called Wefunder and we did a community round in partnership with them that was just ended this past year. So, all in all, I had figured out, yeah, this might not work with everybody, but for me, I leveraged the power of community in order to fund the Kitchenery venture execution. And that actually is one way to do it. Because if your customers believe in you and if they are willing to invest in a company whose products they are actually going to use down the line, I would say that's the best validation that someone can give from the perspective of product success. So, I would say this has been my fundraising journey, although I have, you know, have tried a whole lot of different avenues as well to raise funds, you know, this is something that worked for me.

[00:24:18] James Di Virgilio: And certainly I think the key message that resonates with, with most founders is that, you know, you tried a lot of avenues, you have to be willing to obviously get rejected and put yourself out there. Pitch your idea. And with that, it feels like

now, for Kitchenery, this year is one of those years where it's sort of you're going to get off the launch pad and enter in the awareness space of consumers in the commercial side, as you mentioned, or niche market side. Sort of a huge year, if you will, for Kitchenery, based upon everything you've built. It's coming to reality. What are maybe one or two key things that need to go right for Kitchenery to get to where they want to get to, let's say in a year, year and a half, what are some of the key drivers? If we're successful in 2024, these two things will happen.

[00:25:06] Akshay Bhuvra: You know, this is launch year for Kitchenery and I would say this year mark's monumental milestone for us is definitely closing our DFM package for very first two products, which is the kettle and the blender. These are our hero products. Eventually down the line we are creating an open ecosystem of appliances and we will start working with other brands, oems and manufacturers. Two things that really has to go right is I would say it's product end product. So, we are very much focused on the most revolutionary product and we have already accomplished, you know, 70% of the product journey. So, getting through technology, certification, CE , FCC, and reaching to a stage where we are, you know, ready to produce the first 1000 units, I would say that's, you know, because the demand is there. We already have pre orders and the goal is to fulfill those. And as long as we, we are on the part of manufacturing the products and shipping them, that's really is the key KPI's for our success.

[00:26:09] James Di Virgilio: Yeah. Oftentimes it feels like the easiest thing is to fulfill a quality product. Right? It's so hard to get demand, as you mentioned, to have orders. But oftentimes a lot of businesses ultimately fail at the delivery phase. The product doesn't have the quality they wanted or they can't get it out on time. So yeah, as you mentioned, that obviously is going to be a major factor in Kitchenery and obviously also excellent as an update level that you have so much demand for these products already. Again, you can see them on Kitchenery. They have great visuals, you can see the products themselves, you can pre-order them. But as a last question, let's talk about some inspiration. You may be able to give others some advice, wisdom, inspiration for future innovators. Of course, right now you're at this stage. Hopefully we'll revisit with you and in several years from now and we'll get to talk about a whole bunch of different stuff as you have a business that is, you know, successful in flourishing at that point. But for right now, for all you've learned, for everything you experienced, what are some ways that you can inspire others that perhaps are you at the beginning of your Kitchenery stage and they're embarking on this big quest and there's a lot of questions, a lot of unknowns. What can you give to them?

[00:27:16] Akshay Bhuvra: I would say, you know, ember is the journey. Starting and founding a company and commercializing a product is, you know, is not something you can do overnight. Right. It is. It is a journey of a thousand miles, right? I don't know if you know this, you know, very famous individual, Simon Snake, he famously said that people don't buy what you do, they buy why you do. And your why is the most powerful tool. It is the core belief that I would say inspires people. And, you know, how you inspire others who will want to follow and support you. And the other part in, you know, over the course of my venture execution journey is embrace failure. I would say every failure is, you know, is a lesson in disguise. Right. It's not about how many times you fall, but more about how many times you get back up and learn from your mistakes and continue to move forward. Resilience is the key. You know, we were part of the Spartan incubator here in Tampa, and I think if you haven't had a chance to, you know, visit it, you should definitely come down here and check it out. You know, there's a very, very famous quote also from Steve Jobs, is, you know, printed and engraved in big fonts. And it says, what differentiates pure successful entrepreneurs from the unsuccessful ones is pure perseverance. So, you have to, you know, stick to your journey, believe in yourself, and you have to embrace failure. Stay lean, stay agile. I would say that's also one of the things that I have adopted in my venture execution journey. This might not be true for my future ventures or anything like that, but, you know, the lean startup methodology has really, you know, helped me in many, many ways, quickly develops MVP, a minimum viable product, get feedback, continue to update it, and improve on the same process again and again. I would say that this approach has reduced a lot of risks and also helped me find a better product market fit faster. You know, like how I said, finding hyper targeted market segments in the recreational rv, marines and marine. This has really occurred to me through the lean methodology.

[00:29:25] James Di Virgilio: That's fantastic. Lots of good words of wisdom there. And one that I frequently encounter, almost no matter who I talk to on each show, is embracing failure. That's a great one. You can't, you know, we've never spoken to an innovator that's gone anywhere in life that hasn't said they haven't had to embrace failure. And I think that's a good one in your case. But for now, we certainly wish you nothing but success. Thank you, Akshay, for being on the show. He is the founder and CEO of Kitchenery. He is having a major milestone year this year again. Product time, development is ongoing of course, but the actual product now about to be delivered and you can check him out as we talked about at Kitchenery US. Thank you for being on the program. Actually, it was very insightful

and it was great to learn about a smart kitchen. On behalf of the Cade, we hope you enjoyed this episode. Until next time, I'm James Di Virgilio

[00:30:15] James Di Virgilio: Inventivity Pod is produced by the Cade Museum for Creativity and Invention, located in Gainesville, Florida. Richard Miles and me, James D. Virgilio, are your podcast hosts. Podcasts are recorded at the Heartwood Soundstage in Gainesville and edited and mixed by Rob Rothschild. Be sure to subscribe to The Inventivity Pod wherever you get your podcast and leave a comment or review to let us know how we're doing. Until next time, be inventive.