The Rational Optimist Podcast

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Stephen McBride: Steve, you are maybe the best example of the bits to atom shift or something that we call the innovation avalanche. I know you're in the Navy, but you sold your last company to DoorDash and then you were a senior director of project management there. Now you're building an AI powered anti drone going. Just tell me more about that journey.

Steve Simoni: Well, you know, entrepreneurship, it's hard. So, I mean, I left the Navy in 2013 and moved to San Francisco and I got into tech startups. You know, when you're out in the Bay Area, everyone's doing a tech startup. And if you're not doing one, you're like kind of weird. Like it's like everyone's doing it. And so, yeah, I mean, I started my first company, which failed. And then I started another company that failed. And then...

I started my third company, which was the restaurant software one that we were able to exit to DoorDash. And that was a big success. And then right when we sold it, Putin invaded Ukraine, like the week after the deal closed. And we saw the rising drone threat and we're like, wow, we need to do something about this. And we noticed that the industry and the government wasn't really investing in what we thought was the right solution, which was a kinetic kill solution…

using bullets and that's because of the economics. But overall, the journey of entrepreneurship, I've been doing this for like 10 years now. I love it, but it's very painful in many ways.

Stephen McBride: Eating glass right constantly glass before we get to bullfrog and Alec control Yeah before we get into Yeah before we get into Alan control systems and bullfrog any stories you can share about your time as a nuclear engineer in the Navy.

Steve Simoni: Yeah, that's the quote. I was gonna that's the quote, yeah.

Steve Simoni: Well, a lot of it was classified, obviously. I worked on the reactor protection systems for the Virginia class submarines and the Ford class carriers. So we were responsible for the instrumentation and control in the reactor compartment. So obviously a lot of it's kind of classified, but I'd say that it sounds like really, really cool, like a really cool job, but it's actually, it's the nuclear Navy. So it's very bureaucratic and slow, but on purpose because like these are nuclear reactors on a warship underwater with people around it. Safety is the most critical thing. So you don't make a lot of changes quickly because if it works, it works. Let's keep it going. So I would say that's like the main thing. It always sounds cooler when I talk about it, like now versus

like when you're in it, you're just like kind of in this like somewhat of a boring desk job, but it's a very important mission and a very important job.

Stephen McBride: And as bureaucratic as it is, the Navy has basically been the, if you stack ranked the organisations by the number of reactors, they've built the Navy's top one, at least in America.

Steve Simoni: absolutely. And we've had no reactor accidents in the program's history, which means no fission products released into the atmosphere. And so that's a good thing. That's like the program. Imagine that like the program, we call it the naval reactors program is very successful, largely because of the core principles set by Admiral Rickover. You know, he was founded the whole program and it's a very disciplined organization.

and we've been able to have these warships underwater supporting missions around the world for our government and not have any reactor accidents has been kind of an amazing thing.

Stephen McBride: So listen, tell me about this guy, Bullfrog. What does he do? Why did you make him?

Steve Simoni: Ha.

Well, it's fun. Funny that a bunch of Navy nuclear engineers, because my co-founder is a Navy nuclear engineer and our VP of engineering is a Navy nuclear engineer. It's a bunch of nuclear engineers reinventing the remote weapon station. So the remote weapon station is what you see on like Humvees in Operation Enduring Freedom or Operation, you know, OIF or an OEF. They're like the mounted turrets that go on vehicles that you joystick control. And the joystick is good, but the problem is you can't joystick control it to hit a fast moving drone. So what we've done is taken this product, which is widely available on many vehicles in the army and Marine Corps and Navy. And we've upgraded it with AI to be able to auto target, auto recognize drones. then instead of a joystick, the software aims and shoots the drone.

Stephen McBride: This is obviously an incredible hardware product. It's a hardware system, but as you said, it runs on cutting edge software, cutting edge AI. Just talking to you of the tech stack of the Bullfrog and all the development that went into it.

Steve Simoni: Yeah. Yeah. So this is something about robotics. I don't even think like a lot of maybe investors realize, but you can't really just write software, like really cutting edge software and make a robot work. like any company that's just like, we write software for robots. That's like not a real thing to me because robotics is about the interface between the hardware and the software and it all works together. So, you know, we have a team of really talented engineers, mechanical, electrical.

software engineers, computer vision engineers, machine learning engineers, and they all work together to build Bullfrog because it's the interface between the software and the hardware that really matters. like basically, like for example, you know, the servo, the custom servo motors,

like the servos that are in Bullfrog, that's something we've designed to work for this application of hitting drones. You can't just like buy these off the shelf, like.

All of it's like custom inside of Bullfrog of like the firmware, the robot dynamics code, you know, the PCBs, like all of this, all of the electronics and then the hardware, we cut all of that steel ourselves too. So like it's a fully vertically integrated turret company, which I don't think anyone's ever said that before, but we're a full, it's like the, call it like the iPhone of turrets. Cause it's like, it's fully vertically integrated. Like we pretty much do everything because the application is so difficult. We need to control every piece of it.

Stephen McBride: Did autonomous turrets exist before our bullfrog or just talk me through the history?

Steve Simoni: Um, yeah, like big ones have like big. So ours is like the first one in this small of a form factor, but like on the Navy warships, they have the sea whiz, which is like a, it looks like R2D2 sitting on top of a big Navy warship. And it's like, um, basically what it does is an incoming missile coming to your ship to destroy your ship. It will engage it autonomously and spray a cloud of bullets in the air, like tens of thousands of bullets.

And then the missile or get hit intersect the bullets and get hit We're a little different. We're not really spraying bullets. We're we're turning a machine gun into a sniper rifle So like we're you know, couple shots per drone is all you need with so it's a little different but they're both autonomous though Just different control systems, which is why we call the company Alan control system It's a modern control system that makes the gun a lot more accurate than existing autonomous systems.

Stephen McBride: I think of those Chinese drone shows as like a raw shock test. It's like when you see 10,000 drones light up the night sky, what do you see? How do you think about drones in the sense that how many could a single bullfrog defend against attack of drones? Do you see as a network of bullfrogs? you see bullfrog as one system and then you have electronic warfare? Just talk with Trey how you think about protecting against swarms.

Steve Simoni: Yeah. Yeah. So we're trying to get the engagement down for each drone to less than 10 shots. And an M240 does a 10 shot burst. So you can do the math, but like basically it's less than a couple of seconds per drone. So you could overwhelm the bullfrog with, I don't know, maybe 20 to 30 drones. You know, we don't want to give the exact number out to the enemy.

But then you add more bullfrogs and then you're in good shape. then layered defense with electronic warfare. So electronic warfare, we don't make this at our company, but other companies do. That'll get a lot of the drones, but some of the new drones you can't use EW on, and then bullfrog picks up the rest. So it's kind of like, this is part of a layered defense. This is like the last line of defense after all the other defenses fail.

Stephen McBride: Talk me through the technology, I know you guys have developed cutting edge computer vision, I think you measure over 40 variables in real time. How do you train Bullfrog?

Steve Simoni: So we use synthetic data in Unreal Engine, so a video game engine. We generate all these photorealistic 3D worlds. we have our game developers on staff. And then we train the model based on that. So we drop the threats into Unreal Engine. We take pictures of it in Unreal Engine. And then we train the neural net on our search camera system with that. And then now we're actually adding in real world data too, because we found that

Synthetic data gets you pretty far, you, no, sorry, excuse me, but you still need to infuse real world data as well to make it a little more accurate too.

Stephen McBride: Talk to me about the UAS groupings and why it's relevant for a bullfrog to be able to kill up to group 3 UAS systems.

Steve Simoni: Yeah. So group one through three is what we can neutralize. Group one or like the small drones, like a DJI Mavic, the Chinese one you can buy at Walmart. They're small. And then there's the group two, which are a little bigger, a lot of like ISR planes, you know, like surveillance, small surveillance planes or like small fixed wing craft. It's like a group two. And then group three is like the Iranian Shahed. So it's like a bigger one-way attack drone.

And Bullfrog can get all of these. The thing with the Iranian Shahed though, or a Group 3, is that we're engaging them up to a kilometer. The one drawback I'd say is the military wants to engage those much further out. But again, in the spirit of last line of defense, if those get through, we will be able to take Group 3 down. It's just a little too close for comfort, obviously, because when you hit it with the bullets, it still might be on its glide path towards its target.

still might detonate near you. However, again, if the other interceptors miss it, we will take care of it.

Stephen McBride: How fast is one of those group 3 drones going? Like how fast could it close that kilometer of distance?

Steve Simoni: Yeah, those, so they, it varies based on the payload size, anywhere between like, you know, 50 to 75 meters a second. It's kind of like what they're, what they're at right now. but again, it can vary with the, depending on how big the warhead is on it and stuff and like what other stuff they have on it.

Stephen McBride: Not to give the enemy too many ideas as you said but I'm fascinated by the OODA loop or the basically constant game of cat and mouse at least in electronic warfare so you had drones and then we jammed them and then we put the fiber up the cables on them. Do you see a similar kind of evolution happening in the AI assisted space in the sense that is there evasive measures coming out that try to basically go around kinetic solutions or whatever?

Steve Simoni: Yeah.

Steve Simoni: They will try to change the acceleration of the drones. So to try to dodge, however, in a directional acceleration and the rate of change of the acceleration, like the jerk is what they call it in physics. And so that's stuff they can do. Again, we have plans for all of that.

not going to explain how we do that, but we have plans for that. And then also camouflaging the drones to like make it harder for the vision system to see.

So like against the tree, if the drone's coming in against a tree backdrop, kind of camouflaging the drone like a tree, same colors, is another way. Again, we have plans for that as well, but that's always, it'll be a cat and mouse game for sure.

Stephen McBride: Tell me about the difference between active and passive detection and why that matters.

Steve Simoni: So passive detection is important when you're like, when you're going from point A to point B, like if you're like a military logistics convoy or if you're in an operation and you need to get to, you're at point A, which is maybe you're starting from a city and you need to get to point B, which is some ridge line strategically outside of the city and you need to travel there. You don't want to give off too much signature because if you give off signature, then the enemy could like artillery shell you or know where you're at or send drones at you.

So we built a fully passive search system so we can like search the sky passively, do not give away the convoys position or your platoons position in transit. And then neutralize any threats that come by. Active is like radar. Radar is typically, most radar systems are pretty hot, meaning like the enemy can see where it's coming from. And those are fine because radar works really well. But if you're trying to be like secretive,

You can't really use that. You'll get iced by artillery.

Stephen McBride: How does something like this kinetic system change and like an on the ground close quarters battle like relatively close quarters battle like Ukraine versus something like the Pacific theater?

Steve Simoni: Yeah, mean, so different weapon systems have different uses in different theaters, obviously. So like in Eastern Europe, Bullfrog is, you know, going to be the probably one of the most important products in that theater. Like it will transform that battlefield. Any sort of land war really, it will. At sea, we will be very useful, but in a different way. So our 50 cal version of Bullfrog.

We'll go on autonomous vessels like Havoc or, know, Saronic, name any of these companies. There's a bunch of autonomous vessel companies. They will affix Bullfrog with the 50 cal on it. And so those will be trained to shoot at other autonomous vessels the enemy has so that we can shoot them before they get close and detonate on our boats. And so that'll be really important in the Pacific theater. So maybe it will be more ground targets or sea targets in that theater versus the drones.

Stephen McBride: We talked about Bullfrog as a defensive tilt so far. Do you think it inevitably, you know, a kinetic system is going to end up as an offensive system eventually?

Steve Simoni: yeah, I mean, this is a highly lethal weapon. It's more accurate than any existing remote weapon station that the government has access to. So it's obviously more accurate against all ground targets. From day one, it will be a lethal weapon. Yeah.

Stephen McBride: Talk to me about your partnership with Fonterra. Fonterra is basically making these one man ground vehicles. Think of them like mini-robot Waymos or something like that. Robo vehicles and Robo guns are match made in heaven.

Steve Simoni: It really is. mean, if you have a really good autonomous vehicle with an autonomous gun, that kind of can be like a battle, I call it like a battle droid or something like from Star Wars. know, it's like from the future, basically. So you can imagine a thousand of those just coming over the hill, all autonomous. Like that's like a whole, that's like a whole infantry platoon or bigger than a platoon, really. mean, it's a brigade of autonomous guns. And so.

Stephen McBride: You

Steve Simoni: I think I can see that replacing a lot of the frontline soldier activity. As both companies achieve scale, that's where we're headed. And it's also really good for just other things like if you're going from point A to point B as a platoon, you can send your autonomous vehicles out ahead to get standoff so that you can protect yourself from incoming threats because you send your vehicles with your guns out ahead of you.

Stephen McBride: Is the key to getting to their, dropping the cost of these systems? Is it just technical capability? Talk to me truly, why isn't that the case in the battlefield today? And why will that be what the battlefield looks like in a decade?

Steve Simoni: Mm.

Steve Simoni: Well, I mean, I got to get back to work, basically. Hurry up. We're like, we're just building it. Now we're scaling up our manufacturing and we're finishing our product suite. And yeah, I mean, we're going to be pumping these out and that Fortera and the other companies like them, they're already making a ton of them. So I think it's going to happen in the next 24 to 36 months pretty fast here, like as we, as we scale at ACS.

Stephen McBride: Hahaha!

Stephen McBride: Talk to me about the civilian applications of this. I almost think in five years, every stadium, every presidential public appearance, every concert will have anti-drone and anti-drone systems. So could you see something like a bullfrog with non-lethal weapons like at every Taylor Swift conference or whatever?

Steve Simoni: Yeah, we have one coming out. have a laser dazzler variant that just dazzles the camera of drones. So it's not a full laser that burns them because lasers are dangerous for hitting satellites behind them. Because if have laser on a stadium and it misses the drone, it could go

into space and kill a satellite. And so we have a dazzler variant that just points at dazzling the camera. And so those drones get blinded.

And that'll be a state, that's something that we're gonna do. I can't announce it yet, but we're gonna be working on the homeland with that. And then there's a search cam that we have that's passive search, sky search around the stadiums too. So we have a dual use. Obviously we're not gonna put guns on the mainland, but we have other softer kill variants that are in the works right now.

Stephen McBride: What's the most misunderstood thing about John Wolfer?

Steve Simoni: The most misunderstood thing is that it's the smallest it will ever be today. People are fully underestimating how many

Steve Simoni: Sorry, someone called you there. Yeah, people are like, it's so misunderstood. You can't even fathom the threat. Like people see it and they hear about it in the news, but they're totally underestimating what's coming.

Stephen McBride: Yeah, yeah, no, no, I think you...

Stephen McBride: It's almost like a revenue chart of Nvidia five years ago and you say, that's hyper growth and then you kind of zoom out another five years and just like dwarfs what happened.

Steve Simoni: Yeah, yeah, I mean, it's going to be truly, truly insane. The enemy is making so many drones. Everyone is buying drones. They're so cheap. They're getting smarter with AI. people are learning how to use them more effectively as weapons. And I expect a thousand X increase in the threat in the next five to 10 years.

Stephen McBride: Yeah, just on that point, talk to me about the shift from big, expensive, exquisite systems towards cheap, small and attributable ones. How does that change warfare? How should it change America's tactics and strategy?

Steve Simoni: Yeah.

So actually think that the richer countries like the US and China, I think the exquisite weapons are here to stay. Like I do think that they're important. a big fighter jets can dominate the battlefield. Like a little FPV drones can't do shit against a fighter jet. So there's always a place for them. What's changed? God.

Stephen McBride: Even what would happen, maybe the altitude is different, would it be ever a case where like a thousand drones could actually take down an F-35 or is that just not comparable?

Steve Simoni: Sure, sure. Like autonomous fighter jets, but those are hard to build and those are expensive too. So like, I think the exquisite set and I would consider those to be exquisite, you

know, cause I think those are hard to do. Like I think general dynamics or general atomics and Anderil are trying to compete on one right now. Collaborative combat, okay. Those are going be expensive. Those are exquisite. But there's always room, my point I'm trying to make is there's always room for the exquisite.

weapons systems. I look at our attack on Iran recently. We bombed them with big bunker buster bombs, the B-2 bombers. That's exquisite. However, what's changed is that other countries can't afford to make those exquisite weapons, but they can afford to buy a swarm of drones and wage war in their region. That's what's changed. What's changed is poor countries can now wage war.

And that's like kind of crazy.

Stephen McBride: Very good.

Yeah, that's an interesting concept. Eric Prince has said it's like the biggest change in warfare since Genghis Khan put stirrups on horses.

Steve Simoni: It's crazy. Yeah. I was talking to him at Detroit at Reindustrialize about it.

Stephen McBride: Yeah, talk me through, I'm just, when I discovered all the innovation that was going on in drones and anti-drones a couple of years ago, I was fascinated by all the different solutions. have kinetic solutions like you guys, electronic warfare, microwaves, lasers. Could you, is it possible to stack rank all the anti-drone solutions by cost per kill? And is that the metric that we should be paying attention to?

Steve Simoni: I think that there's a two dimensions. There's the cost per kill, and then there's the level of effectiveness based on drone type. And it's kind of like an XY plot maybe. Maybe there's a third axis, but I have to think about that some more. But they all have different utility and use cases. There's no one silver bullet, so to speak. And so yeah, there's different stuff like electronic warfare, lasers, guns, there's microwaves.

And they all have different utility. And it depends on what kind of drone you're trying to take down. Cause like if a drone has shielding, for example, then you can't really hit it with a microwave. Like if it's shielded against that. Or if it has like reflective coating, a laser's not going to work that well. And so, you know, you might have to go to the guns, but the guns have their own problems with range and stuff. And also maybe like how many, how many you could take down in one engagement.

So there's different parameters. do think obviously since I'm a bias, because I make an AI machine gun, I do think it's the most useful overall. That's why I'm doing this. I wouldn't be doing this if I didn't think I had the best product in the world by far. I already sold a company once and don't need this money. if I'm to do it, I'm going to try to have the best one. And so I think we have the best one by a factor of 1,000.

Stephen McBride: I've heard you talk about battlefield economics, which maybe you should start a college course on that or something like that. Maybe it's gonna be the hottest new area of

economics. Do you think the DOD's head is with the battlefield economics or do you think they're basically just focused mostly on, hey, let's get a better, more effective solutions?

Steve Simoni: I think it's starting to change. I I started my career in the Navy and we weren't really that concerned with cost in general. But I do think it's changing. Like they are more concerned with costs now. I can't just go and charge whatever I want for Bullfrog. I've tried. So they're looking at these costs more seriously and it's a good thing. But again, think still though, we don't lead with, like I don't want my sales team, like my marketing team, we don't.

We don't really talk about how cost effective bullfrog is like too much to the customer. That's like the final selling point. never start up. You never really want to, you want to say your product's 10 times better than the existing product. Not that it's 10 times cheaper. Um, because people like, you know, like, look, you like to buy a Mercedes because it's like an expensive car, you know, it's not like you're buying the cheap shit. People want like premium products. So like, I don't, I'm not like running around being like, Oh, my turrets cheaper.

Now I'm running around saying it's 10 times more capable. And then, by the way, yeah, it is cheaper. And that's a good advice for any entrepreneur. You never lead with cost, ever.

Stephen McBride: I saw you post about there's so much fibre optic cable spill coming out of the back of drones in Ukraine now that boards are building nests with it. Do you have like a recent story or recent development from Ukraine that just sticks in your mind about how much warfare is changing and how fast it's changing?

Steve Simoni: I mean, I would say there's a couple of things. One, where's all this fiber coming from? And that's important to know. And that's coming from China, basically. And I think they're selling it to both sides, probably. I think they don't care. And the main story is China, not really Ukraine. So if you look at the war in Ukraine, China is profiting.

And I think that the main reason, the main metric is sales. And we're losing the sale. Like we used to be the primary exporter of weapon systems and we still are as a country, but we're losing our lead there. So we're going to lose our influence because other countries are now buying from China and we're going to lose the sales game. It's, it's really, really, really, really sad and dangerous.

So I always tell our government, we need to change the ITAR rules, open up the floodgates, because we need our industry to be able to sell to more places more freely. And you're seeing it in Ukraine, we're not having as much influences there as we should be.

Stephen McBride: talked to about China and your views on the military industry there. Obviously everyone knows they produce a ton of drones. But where are they in the other areas of warfare that really matter? Where are they in the AI, in the battlefield and so on?

Steve Simoni: I mean, they're beating us. They're building more ships than us. They're building more drones than us. You know, they don't have as good of, I would say, software as we do. Like we definitely have like better, we're leading on AI. But I think as far as hardware and weapon

systems, they're able to build way more. mean, in Shenzhen, it's the world's factory. That's what they call it. And it's just an amazing, amazing place. And if you go to China, it's like a whole like alien world compared to what you see in the US.

It just looks like a different planet. And it's very concerning that they just have such a huge manufacturing lead. I do think that we can catch up potentially and bridge the gap with products like Bullfrog and our AI systems are better and more capable. But yeah, mean, as far as shipbuilding goes, drones, these are two primary important things that they just are beating the heck out of us on.

Stephen McBride: What other industries or companies are kind of important to the military space but not directly? And where I'm going with this is BYD important, is CATL important, batteries, things like that.

Steve Simoni: I mean, the most important company for all of these products is Nvidia. An Nvidia supply chain is heavily Asia, Taiwan, CSMC. And so if you have an Nvidia product in your robot, like we do, I mean, everyone does, by the way, like anyone using an Nvidia Jetson for their robot, your supply chain's at risk if China takes Taiwan.

I think that's an important thing to watch. other thing to watch is like, MP materials, which is a mining company. mine neodymium. neodymium is the main magnet in all of these motors that go on these robots. like these, these are two really important American companies. China and Myanmar, they, they mine way more neodymium than we do. So like we get, we're like one sixth of the world's neodymium.

in our country and they have like almost all the rest of it. And so again, a huge deficit in rare earths. Obviously very concerning.

Stephen McBride: Just make that more concrete. If that neodymium supply went away for tomorrow, for whatever reason, is a case where you literally wouldn't be able to produce drones in America.

Steve Simoni: Well, yeah, it depends on the brushless motors the drones are, like a lot of these motors use this rare earth or a rare earth in the brushless motor that is slightly similar one to that, that we also mine. So yeah, like that, that's a concern. And the brushless motors shortage could happen to us for drones. For us, it's more of our pitch motor, our motor that moves the gun up and down. That uses rare earths.

And we're looking at other options. I can't really talk about it on the phone because it's kind of a competitive advantage. But yeah, there's other options potentially. But it's certainly something I watch out for a lot because it's kind of like a macro trend.

Stephen McBride: Don't leak the Alpha Steve, don't leak the Alpha. Listen, you could go max long one other defence tech company, obviously other than Alicontrol Systems, who would it be and why?

Steve Simoni: Max Long, other than my company. Let me, yeah, let's, I would say I'm a big fan of Aion. I think that the shoulder fired rocket space is ripe for disruption. And I think that they're well positioned with almost no competition there. I also like the Vatten, the underwater vehicle.

Stephen McBride: course. Your Mac's long already.

Steve Simoni: I think that space is right for disruption. Basically, I'm max long anyone making a robotic product. Like, I think that's more important than making like all this stuff. Like, I don't think like just random straight software companies in this space do well. And I don't, I don't think just like a pure hardware manufacturing does well. I'm long, like companies like Aon or VATN or B or BOOF or ACS, the three of us, what we have in common is we're all making a robotic

Like a product we can sell over and over again. That is repeatable. So that's what I'm long on. And there's a lot of companies that are not trying to build a repeatable thing, but they say they are.

Stephen McBride: who will be the largest defence contractor in 10 years.

Steve Simoni: I I actually think ACS in 36 months by market cap. I mean, we have the best robotic product, the largest total addressable market. Every military across every country needs to upgrade all of their guns to hit drones in the next five years. Our sales pipeline is so insane. We're the most in demand product. yeah, I I think just on a single product.

Stephen McBride: as in my rocket cup.

Steve Simoni: the largest defense company in the world.

Stephen McBride: I love it. Tell us about the roadmap for other control systems. Where are you today? What does the next 12 to 18 months look like?

Steve Simoni: Well, have one other, well, we have, so our, our whole vision is like, around AI machine guns and precision robotics using, and then making basically dumb bullets, cheap bullets more precise. Right. So Bullfrog is the first version of that. It's a point defense solution. I'll just say high level. have an area denial area defense machine, gun, AI gun that will be more for like area of effect. And that's like, I can't say too much about it, but that'll be the other product, but.

All the same common theme of just like AI machine guns. that's kind of like, we think that that's the future of the battle space because the guns are good. You know, the robotics can get so accurate that the bullets can get on any target and it's way cheaper than interceptors or any sort of other type of product. And so that's where we're headed and scaling our manufacturing on Bullfrog so that we can become the largest defense company in the world.

Stephen McBride: Steve, I know we're coming up on time here. I'd to finish with a game of over overrated, underrated. So I'm going to name 10 defense technologies. You say overrated, underrated or properly rated. Good. Right. Swarm. Swarms.

Steve Simoni: Okay. Okay. Okay.

Underrated.

Stephen McBride: Subsea drones.

Steve Simoni: Not much fun?

Stephen McBride: Subsea Drone, underwater Drone.

Steve Simoni: properly rated.

Stephen McBride: space weapons.

Steve Simoni: Overrated.

Stephen McBride: Electronic warfare.

Steve Simoni: Overrated.

Stephen McBride: Israel's Iron Dome.

Steve Simoni: I properly rated. Very good.

Stephen McBride: The golden dome.

Steve Simoni: overrated.

Stephen McBride: Microwave weapons.

Steve Simoni: I think I'm overrated.

Stephen McBride: loitering munitions.

Steve Simoni: Underrated.

Stephen McBride: combat humanoid robots.

Steve Simoni: overrated by far.

Stephen McBride: Anti-drone lasers.

Steve Simoni: I would say properly.