Tyler Kern 0:03
Welcome to the sunrise podcast

powered by sunrise labs.

Right welcome into the podcast. I'm your host today, Tyler Kern and I'm talking to Adam Jacobs, and he's the Chief Technology Officer at sunrise labs. Adam, thank you so much for joining me on the podcast today.

Adam Jacobs 0:20
Thank you glad to be here.

Tyler Kern 0:21
Absolutely. So we're talking about being able to get medical development devices to the market a little bit faster. And so we're gonna talk about that today and just get a little bit more of a sense of what sunrise labs does and what their role in that process is. So, Adam, let's just start off by talking about what types of things that you do at sunrise labs on a regular basis.

Adam Jacobs 0:43
So suddenly, at sunrise labs were involved in the product development phase of of bringing your medical devices to the market, although it's not exclusively medical, it's about 90%. And that includes everything from defining the product, and then developing it so that it's ready to go to production, we don't do production. But we'll do the product definition. And the feasibility stages. And the real core is making the the product that can be FDA approved and manufactured, we also do have sort of a focus, many companies come at this as an from an industrial design perspective, or mechanical engineering. Our core really is complicated system. So we do that. And we do a lot of electronics and software optics. And we do have mechanical, and usability and ID as well. But it really I would say that the the deep jeans that we have are his complicated system development.

Tyler Kern 1:43
Yeah, that's really, really fascinating to me, and really important work. You mentioned, doing a lot of work to make sure that a device could be FDA approved. And so part of what interests me is just the process of learning how to make that happen. So how much does your experience really play a role in what you do every day? Just knowing what the FDA is going to do? And that sort of thing? How much does that play a role in what you do?

Adam Jacobs 2:09
Well, because we have such a broad client base, and we've we've been doing this for a long time, about 27 years, you know, we see a lot of things and we see all the different trade offs that you have to make during part development. And that's a pretty broad set of trade offs in terms of DFT itself. You know, during product development, there are specific requirements for, for example, quality system processes, and we do all that, you know, we are 1345 certified. And, you know, we go through a process when we're when we're developing something so that the output of that can be submitted to the FDA according to their requirements. But there's a much larger picture, in terms of the kinds of things that you you might want to do during your product development, for example, there's a lot of different players that you have to accommodate when you're in when you're all done, you have to be able to manufacture it, you have to be able to make money on it, you have to make sure that it's reliable, you have to make sure that it's it's economic, for the for the users, there's lots of trade offs. And because we see so many projects and different types of projects, we sometimes you know, have a have a perspective that someone who works in a company that's focused on maybe one market segment or one kind of project, or maybe sometimes even people work for many, many years on a single product that they don't they don't get exposure to.

Tyler Kern 3:32

Yeah, that's absolutely true, you definitely have that that wide angle lens, to be able to see all of the different moving parts that play a role in this. And as such, I think a lot of times, you're able to then see and anticipate some of the things that really slows down medical device development from taking place maybe as quickly as it could, what are some of those things that that slows it down and keeps things from coming to market maybe as quickly as they otherwise would be able to?

Adam Jacobs 3:58
Yeah, that's a great question. And lots of lots of people want to do this as efficiently and quickly as possible. You know, investors often, you know, have, you know, they, they want to make it to profitability as soon as they can. And everybody really wants to do it less expensively, in shorter. There are there are many, many things that we see. Because we probably have 20 or so projects at any given time. And I'm just super lucky because as CTO, I get to, you know, I get to see most of them. But But our team gets exposed to lots of projects. And there are there's definitely things that are the stumbling points and the things that slow people or companies down from from getting from here to there. You know, I think that then you can generally break this down into a number of different things. The first thing is being really clear on on getting the product definition that the market really wants. Sometimes we see people having an idea They haven't really fleshed it out. And they haven't thought through some of those interactions that we just spoke about with all the different players. So having a really clear vision of what that market really wants to see in the product, and how they would use it is probably, you know, a great place to start, you know, another and that, that ends up, that ends up folding into basically having really good requirements. requirements are the are the input into into a product that somebody, sometimes sometimes people come to us with pm market, or usability or user requirements, and we'll turn that into what the product has to be. And sometimes they don't even know they sometimes they just come with an idea. So there are, you know, to get a good, mature vision of what, what you really want it to be is, is one of the best things you can do. Because often as you're working through these things you're learning and you end up learning that Well, that wasn't as important as we thought this was and then all of a sudden, you have to switch gears in the middle of a project. And everybody knows that when you change things later downstream. That's an expensive and time consuming thing to do. So a couple of things that you know to do that are that upfront, it's, it's, it's great to ask quite a number of users about, you know, what they think more more than you think you might need, because there's a very diverse group of users, usually for medical devices. And, and which does not mean that, but they know all the answers. You know, if you ask Steve Jobs, he'd never asked us if he had a vision of how he interacted with something. And he was just very sensitive to how somebody uses. So I always like to say think like a user, you know, try to incorporate that and feel what they feel another thing that that leads to his good requirements. And then that vision, that vision will, will lead to good requirements. And finally, at the very beginning, it's really good to be able to rapidly iterate. So that, you know, when you're trying things, you'll often you know, have concepts and ideas and requirements and really work through that don't don't just hit the first one you want, that you come across. It'll make sure that that you've you've really worked it so that when you go into the process, you feel pretty good about it. Yeah,

Tyler Kern 7:23
absolutely. And one of the things that you mentioned, and it sounds to me, like when you when you're talking about something like this, that clear communication and understanding exactly what somebody wants is, is a large part of what you do. And so how do you go about having that conversation? And what does that conversation look like to you know, clearly understand what is required in this case, and what the person is asking for.

Adam Jacobs 7:50
So sometimes people come to us with, with, you know, they have experience in the field, and we try to, you know, bring that to light to see what they do and don't know. So we'll ask them to essentially to educate us about what they do or don't know. And we get a sense of how, you know how deep they are into that process. Often, we sort of dive in and start asking lots and lots of questions, and then start guiding the conversation towards How does the user See this? And how does somebody use it?

And how, you know, what are the what are the issues that that come up. So we there's a lot of a lot of early on, there's a lot of what I call just exploration, both of technical exploration, because we're such a technical team here, we often look for, you know, technical problems, people come to us sometimes, and they have an idea that may or may not be possible or feasible, or just on the very edge of you know, what's physically possible. And then you have to sort of tease that stuff out. So in terms of the, and that will, that will often lead to implications on the product definition. So both in terms of the, the, you know, we've learned that you really have to understand the way it's used and try to optimize that. And you know, what I call you know, do, you know, channels, Steve Jobs a little bit, you know, really feel how it would use to fit to use that. And then on the technical side, make sure that that these steps really make sense, because they sometimes do and sometimes don't.

Tyler Kern 9:26
Yeah, and I'm wondering just how often do people come to you with ideas that simply aren't feasible and how do you go about, do you try to craft a solution where you kind of change what they initially wanted to be able to, to fit in to be something that is possible? Or how do those conversations typically go?

Adam Jacobs 9:47
You know, I think one of the great things about working here is that we had this kind of high integrity culture and we feel like we have to be honest with people. So and and you know, we really take it to heart that we want them to succeed in our philosophy as if they succeed that we do. So if we see if we see a problem, and we do, I mean, I guess I play a lot of this frontline role here, where people will come in. And it's not that we know all the answers, but sometimes, sometimes we've seen things. You know, there's some specific examples might be that, you know, I have a lot of experience, for example, in developing cancer classification classifiers, you know, classification, the automated classification devices, and I see people come in, and they have an idea. And having spent many years in it, you know, you know, some of the pitfalls, and you talk about those pitfalls in that. And, you know, sometimes people think that, you know, that they've got a handle on it. And, and sometimes they think they do, and we think that they have a lot to learn, or a lot, a lot more work that's needed. And so sometimes we'll try to basically, you know, we'll just bring it up, and we'll talk about doing, you know, early, you know, early upfront work, feasibility work, or trying to put in a proof of concept work, to see if those really are issues. And we'll generate a, you know, a risk list, and we'll do what we call Technology Readiness assessments. So there's lots of things that we can do, to try to not only find those things, but to decide whether they're overcome bubble, we have a project now, which we're just not sure, if it will work, there are some physics and physical limitations about it, you know, it's an optical sensing device. And there's a whole research program to just see whether this is possible. And it's just pushing the limits. And that's it, that's a little unusual for us, we often are more in, you know, the after that phase, which is basically the product development portion of it. But when we see these, these feasibility questions, we really try to put those two into the forefront, because, you know, spending a lot of money developing a product that's going to have problems later is just a waste of time and money, and nobody's happy.

Tyler Kern 12:04
Yeah, absolutely. I'm trying to kind of craft the question. And you can tell me if this makes sense or not, but you are in the world of product development, as you mentioned. And in the larger ecosystem, how of eventually producing medical devices? How does you at sunrise labs doing your job make everyone else's job along the way along the process of making this device? How does how does you doing your job well make everyone else's jobs easier.

Adam Jacobs 12:37
So if we do our job, well, we can help guide the process in a way that that helps avoid some of the pitfalls that that that people may or may not be aware of, or will work with people sent there, some people work with, that are very experienced, and they really know their stuff. And, you know, we're just good at execution. So there's sort of different, there's different, you know, types of interactions that we

have. But a lot of times, you know, we might, we might bring up issues that are, you know, try to guide them through this process and say, Look, the requirements, you really need to focus on this stuff, or the, you know, if the device fails, how are you going to deal with, it's called an FMEA. So if the device fails, and when you let those things, we let those things become, you know, be unresolved. They end up being problems. So we try to we try, we have, for example, a status report, and we put those things up, you know, in it so that we say, these are, these are risk items, we have a list of risk items, and we keep bringing them up, because people tend to bury those risk items, then do what they can do, because they're trying to make progress and tall, they had deadlines. And so we'll, you know, we'll we will try to guide them through the process and, you know, in a way that doesn't leave those those risks unresolved. And also, that the process is what is what's needed. Because there are there are just, it's it's a regulated environment, there's things you have to do. So make sure that, you know, there's some people who have less experience, there's startup companies and things like that, and you have to educate them about all that. So. And we do that

Tyler Kern 14:27
right now. Now, you mentioned earlier, just the number of projects you get to be involved in and you said it with a certain amount of joy in invoice and enjoyment, your voice, you know, and I get the sense that you really do love what you get to do. And so what are some of the things that you've seen that you're excited about? Or what are some of the advancements in the field that have you energized and excited to go to work every day?

Adam Jacobs 14:52
So it's a great, it's a great question. I mean, I always have, I've always thought that there's, you know, from a personal perspective, there's there's At least two things that that make a job and a place to come great. One is just, you know, being around good people. And, and that kind of cultural things that and sunrise is just a joy to come to, it's, it's really a nice place and the people are good. And you know, it's a high integrity place, and that has a lot to do with it. And the way we interact with our clients, you know, we, it just makes that but also, the kinds of things we work on is, is just really great, I have a saying that if you if you go to a party, and you can brag about what you do, it's a good sign. So, you know, when you're working in the medical device industry, it's great because, you know, we work on, you know, life support devices, you know, things that that people would die without, we work on robotic surgery devices, we work on, both in vitro and in vivo, diagnostic devices, you know, complicated optical systems. There's a whole bunch of treatment type things that we do electrical stimulation, or surgical devices, we've worked on blood pricing, and it's just endless, there's just so much variety. It's just a joy to be able to work on all those kinds of things. And it's, it's, there's always interesting problems, it's, and we're good at overcoming them. And that's really satisfying, and you know, that you're doing, you're doing good work and helping people live better lives. And that's just, it's great.

Tyler Kern 16:24
Yeah, you can really hear Yeah, the joy that you have, and the passion they have for what you do come across when, when you speak about it. And I think that last aspect shouldn't get lost in everything, just that you do, in the, at the end of the day, get to say that, that you're helping people and helping people live better lives and live longer lives. And I think that there has to be like a certain amount of that, that is incredibly rewarding.

Adam Jacobs 16:47
Yeah, that's great. So you know, and, but, you know, sort of back to the main topic, you know, helping to really get to that point, there's a lot of things that have to go, right. So the so the, the, the things that, you know, the specific steps about how to make all those go right, is is what we try to bring to the table, and some, some specifics, you know, maybe maybe or an order. For example, we talked about defining the product, you know, often what we talk about with people is, especially when you're starting with the new part, is an idea of what's called a minimum viable product. And a minimum viable product is the things that you absolutely need to have to go to market and succeed. And often, that's a

great place to start, because everything outside of that burdens the project with both risk and timeline, and money that you may or may not want to bear. So that's a, that's a great thing, it takes a lot of perseverance and discipline to stick to that. And one thing we say is to be ruthless with sticking to your MVP doesn't mean you can't, you can't add a few things that you want to but in general, that's a great way to make sure that you're going to get to market faster. hours, I was also gonna say that also in the in the definition of the product, there's, there's ways that you can define a product that are that are easier to do. For example, if you if you if you make a product that's both hard to develop and validate, because some some validation is much is much harder, for example, and everybody in the medical field knows, so the difference between a PMA and a 510 K, which is whether you have to go to clinical trials and prove that it actually, you know, has efficacy. That's a big difference. And there's lots of gradations in in that it's it's, for an example, I spoke about this before might be that, let's say you have a device that is looking at maybe it's an optical signature of a cancer. Is it a cancer that's easy to get? Or this isn't easy to get? Are the are they very rare? Is data hard to get? If it is hard to get, it's gonna be hard to validate if if it is easy to get example that might be scanning, pathology slides, you know, you can go to a place and get 10,000 pathology slides with reports tomorrow. So the certain things that, you know, make it easy for you to get there. And the definition of the product can end the whole, the whole ecosystem is important and thinking about that.

Tyler Kern 19:33
Right, right. And you know, when you were mentioning earlier, just keeping that goal in mind and then you know, having something really really focusing in on that goal and making sure that the other things didn't get in the way of achieving it. It kind of reminded me I suppose that keeping that goal in mind really does probably put into focus, efficiency and in productivity and ensuring that what you do is of the highest quality and high the highest standard.

Adam Jacobs 20:04
Right? That's, that's true. It's just it's it's hard to be that discipline sometimes for people, when they, when they start to think about all the things they can do, as opposed to the things that they ought to do. There's, there's also, there's also details in the development process. And we started to talk about this. But there's there's a list of things that I look for. In terms of the development process, we have a thing that we do, which I tend to be involved in a lot, it's called phase zero, and it's a feasibility and invention phase. And we were talking about this before, where, you know, you want to make sure that you've, you've put those risks to bed, before you start investing all this money in in the downstage stuff. So if you really, maybe if you're a small company, or a big company with an idea that that you're not sure about, you know, you try to put the the investment that you have towards overcoming early feasibility questions and bringing, we have a process which you call Technology Readiness Assessment, and deciding you know, where you are, and if you're bringing that to the point where you feel comfortable, that the risks are low enough, that it's time to move forward, to forward to the later phases. And, you know, one of the things I always tell people is, you know, don't leave hanging problems that can derail a project, if you have something, prioritize those and keep keep solving those. So this phase zero can be done in parallel with early phases, like, for example, if you're going to do market requirements and usability requirements, and early ID type of sketches, you know, you can do some of this in parallel. That's another thing that would that we do often to, to shorten the, the timeframe.

Tyler Kern 21:48
Right, yeah. And you know, what, as I hear you talking about this reminds me that you've been in the industry and been in the business long enough to kind of see how that works, and see how other people might miss that aspect. But you've had that that amount of time in the industry to know that you can do certain things in parallel and keep things moving at the same time. And then also just acknowledging what some of the pitfalls are, that people who might be either too enthusiastic or, you know, wanting to jump in, you're able to see those and kind of map those out beforehand.

Adam Jacobs 22:22

I mean, one of the most satisfying things I can do sometimes to slow people down, yeah. And I hate to say that, because usually people are in a hurry. But sometimes you say, look, let's slow I call it backburner development, let's let's solve this problem. And then then we're going to turn the gas up. And, but let's keep the let's keep the spend low, and solve, solve the fundamentals. And then when we get when we really feel good about it, then we're going to, we're going to just accelerate and you'll be really ready to you know, you haven't wasted all your resources. Before you, you're ready to go. So then, when you do get to the later phases, there's also just the kind of pitfalls of development that can happen. For example, one of the things that I'm a big proponent of is getting the architecture, right. The architecture is the general framework of a device. It can be software, electronics, mechanical things. And that architecture defines really the it's like the skeleton of the of the device. And when you get that, right, lots of things go, right. And when you get that wrong, you have lots of limitations, and things can start to be problematic later. I mean, a simple example might be that you have a communication protocol. And is that protocol. Adequate? Is it is it robust? What happens when things go wrong? Does that communication protocol break down, for example, we might we have a semi palatial property about how we have how we have a call it a blackboard, and all these things are writing into this Blackboard. And it can, things can go wrong, and the and the blackboard doesn't change all that communication is on is on a deterministic schedule, nothing that happens changes it. So it's a big thing that we do, where we do a lot of state chart kind of development, and it makes things deterministic. So that's one of the things I say is make things deterministic, so that you're not, you're not looking at all kinds of exceptions that that end up getting into your into your product that then make it break. So that's those the kind of architectural choices that are really important. And you get a feeling for these after doing it for so many years.

Tyler Kern 24:45
Yeah. And I think when you talk about architecture like that, it really drives home how important that aspect of what you do is where does that occur in the in the process, and how does that set up the rest of a project from once. It's been Once that's been decided on,

Adam Jacobs 25:02
so that that, that happens in what we call phase one, which is the you setting up all your plans and setting the whole platform that you're going to do the project, it's not only the architectural platform, it's the project planning, and the and the documentation and, and, and, and the process that you're going to use. So that that'd be phase one, that we then then go into to, you know, phase two, which is the actual development activities. And there's, then there's some things there that one can do, also, to speed things up. For example, you know, we say that, you know, we'd like to develop these subsystems, and know that they work as a subsystem, so that so that you're not, and you isolate that if you do architecture, right, you can isolate a subsystem, get those subsystems to work, then another subsystem is not going to interact with it in a way that will break it. So that's one thing that we do, and that comes down to sort of testing early and often, especially, they can software, for example, we went agile processes, and, you know, we'll test the the output, you know, very regularly, daily and or weekly, are, to make sure that that the things that we're doing are working, you know, and the funny part about this is that a lot of the the issues also with product development are human factors. It's not just that there's a process and technology, a lot of what we see, probably maybe the biggest thing we see is the the human ways that people interact. For example, often, you know, we just say, the communication is so important between anybody that you have to communicate, communicate effectively. But it's not about communicating status, it's about communicating the things that you that you need to make decisions on and communicate in a way that's productive. So there's some projects, especially we've had these with much larger companies and a lot of that communication, they want it to be status oriented, where are you? What are you doing, and they want to feel that they're in the loop. And that's important to some extent. But it's also important to focus that on on in a productive way. So that you're, you're using that communication, not just to not just to get everybody up to speed, but also to use it productively to make it make decisions. And that is one of the things that we talk about a lot. The other is that, no, I really believe that people should focus on their core competency, like a company usually has some kind of secret sauce or expertise that makes them special, maybe

it's a biotech company, and they have a molecule that, that can read a certain kind of disease state or, or treat something or diagnose something, and they don't really know about, you know, pneumatics, and electronics and software. And, and so I say, often that it's great to outsource the rest to experts, because if you involve experts, and the word I like to use is fabulous, you know, fabulous team members, because it's just it's a whole different level when people really know what they're talking about in a field. So, you know, you want to get your whole team to be really as fabulous as you can in their expertise. So and that usually involves bring bring in, you know, experts or, and instead of outsourcing what, what is not needed as the core competence, I think that's a really important part, and trust in those people, because that ends up slowing a lot of projects down, you know, people end up developing something, they think they can do it less expensively, or faster. And often those things come back to us. And we end up having to redo them. So that's that human human interaction part of it and getting the right team is just so critical. Another important point is just on a technical level, when you're making your actual design decisions. There's an idea of how much innovation you need. And there's this concept that I like to use, which is you really want to minimize the innovation you need. And there's there's often a, an impulse to use, you know, bleeding edge technology, things that are the latest things, the newest things, the fastest, fastest chips, that kind of latest buzzwords, and sometimes that's really appropriate because you're really stretching the limits of, of what can be done. You know, biotech does that all the time. And, or, you know, you really need that.

We have an optical detection system, which really is pushing the limits that that needs to really push as far as you can. But you want to minimize innovation, if you have one or two innovative things in a product, that's good, if you have seven or eight, the chance of innovating on all seven and eight, and having them all work, you know, is low enough that, that, you know, you really add a lot of risk to your project. Right, right. Those are all things that that that that we see over and over again. You know, and sort of getting back to that, that human fact that human and corporate culture factor, there is this, there's this, you know, we often see that people are having trouble making decisions, or, you know, moving quickly, and sometimes if they, if they either are more disciplined or let us guide them, it actually sometimes works better. When you have a decision that needs to be made, we have we have a mechanism called a decision analysis form, where we'll analyze something and say, here's our, here's our conclusion and our recommendation, but it's your decision, you know, you have to trade off cost for size or weight, or, you know, some user function. Here's the trade off, we actually think it should be this, but what do you think, and it's your choice. So making those kinds of decisions in a timely manner, which can be difficult, especially for big companies with lots of layers and lots of players. But that's a really key thing is to be able to make decisions quickly.

Tyler Kern 31:32
Yeah, and you have these, I'm sure that you have these companies and these people that have this grand goal in mind, and you have to bring it down and make sure that each step along the way, and each each layer that you're involved with, is is feasible is able to be, you know, able to be done, you have to make sure communication is good. And a lot of other things along the road, like you've talked about, I think that that is a that's a process that probably, you know, takes a steady hand and needs some wisdom involved, to make sure that people you know, with the best of intentions in the greatest visions of what they can accomplish, or actually able to achieve something along the lines of what they're trying to do.

Adam Jacobs 32:14
Right, right. And because we interact with so many companies, and we, it's sort of like, you know, talking to people, you know, you learn, you learn to see the strengths and weaknesses of that particular organization. And sometimes you can impact that, and sometimes you can't, so we do try, we try to give our feedback, you know, honestly and helpfully in a constructive way. You know, and we have a saying here, it's one of our core core core creatives, it's called assumption of positive intent. And it brings up a point because we assume that everybody's trying to do the right thing. And it's almost always true, I really believe this in my heart, that people can disagree 100%, and they both think that they're doing the right thing. So it's mostly comes down to the, the, the perspective that

they're taking, for example, the manufacturing person, you know, might be, might be looking at, you know, how easy it is to make, what's the yield, the marketing person is looking at, is the user going to like it, the financial person is looking at what's the profit level, the clinical person is looking at, what's the efficacy of the device, they're all trying to do the best they can, but they tend to optimize the thing that they're looking at. So there's this system wide perspective, that kind of gets back to what we were talking about before, within an organization, and someone has to make those trade offs, someone has to say, Yes, I understand. And that this is best for you. But as a, as a, as a whole, you know, total, that the decision, I think it shouldn't be this and, you know, we do try to, we do try to provide that, that guidance when we can. And it might be it might be for example, between a mechanical or an electrical or software or an optical solution, you know, you can to give a trivial kind of example, you know, you can, you can do something mechanically with a gear, you can do something with the control, open a motor, in electronics, you can have software calibrated, or you know, and so, which is the best way to do it. And there's a set of wisdom of of that, you know, that you have to apply to that. So that's on the technology development. And then there's a bigger picture. When you're dealing with organizations, the interactions that we have, there's a regulatory person and all these other things we talked about that, you know, you're trying to balance all that so that they can make their decisions. And that's where people get stuck a lot. So when you if you have somebody who can make that global decision, it really helps getting to market faster.

Tyler Kern 34:53
What really strikes me about that conversation is as much as you know, your job is technology and you are Chief Technology Officer, your job also seems to be as much about interacting with people and understanding how to manage those relationships and manage those conversations and I in to help people move forward with decisions, as much as it is, you know, making sure that the technology is also up to the standards that it needs to be.

Adam Jacobs 35:19
I think that's true. It's, it's very much true and CTO is my title here. You know, I have, I have kind of a, you know, have a pretty broad background, I've been the VP of various things in the past that, you know, have mostly mostly r&d and development groups, but it often comes down to people, either the people who are developing it, or the people who are, you know, financing it and right, the human interaction part of this, or just usability, usability of the pay of the people using the product. That's such an important part of it. But you're right, that, you know, at the heart, we are technologists, and we love to get in there and, you know, move electrons and screw screws and write software.

Tyler Kern 36:04
Absolutely. Well, Adam, it's been fascinating learning more about what you do at sunrise labs and learning more about the process by which something goes from, you know, just an idea into full implementation and the part that you play in it has been really exciting and really interesting to learn about today. So I really appreciate you joining me on the podcast.

Adam Jacobs 36:23
And I hope that I hope this helps people developing products to try to get there faster.

Unknown Speaker 36:28
Absolutely. All right. Thank you.