

[00:00:00.250] - Rohit John Varghese - VP, Research & New Product

Well, I'm an engineer, and one of the problems that we have is that we go out there and build a cool product and then go look for problems that it can solve. It's not the optimal way. When we started the journey with Harmony SHR, Mark and I, who were there at the early days, we spent a lot of time in hospital settings, talking to therapists. So Mark interviewed dozens of patients and therapists and doctors, and I spent days upon days embedded in hospitals, in therapy settings, spending time watching therapists perform therapy on patients, and truly understanding what are the needs in a physical therapy space, physical and occupational therapy space, that a device like Harmony could hopefully solve. And that helped us understand what are the exact features that we need to focus on and what are the deal breakers that if you ask someone, here is a device, here is a tool that can make your therapy better, would you use it? Would it truly make it better? When this robot rolls into a clinic, you could be training up a new therapist in a matter of hours. And when you get a patient into the device for the first time, they are running and performing therapy in a matter of minutes.

[00:01:26.280] - Rohit John Varghese - VP, Research & New Product

Every minute that you spend on setup, every minute that you spend on getting a person into the robot, is a minute less of therapy that you can do. And that is one of the key things that has come out of this constant collaboration.

[00:01:42.230] - Rohit John Varghese - VP, Research & New Product

The real future that I see the potential that we have is in data that Harmony can generate. We have on this robot, in its current form, has over 80 sensors, and each of them can gather samples at over, up to 2000 times a second.

[00:01:59.740] - Rohit John Varghese - VP, Research & New Product

It could tell you how much is someone's muscle strengthening over time, how much neuroplasticity is happening, how is your injured nervous system healing or responding to therapy? It can be used in many industries outside of healthcare, in heavy industry, in logistics and warehouses. You could use a tool like Harmony, or the data ecosystem of assessment that devices, connected devices like Harmony could give to gage the physical health and physical capability of a worker. Static assessments of force and positioning that one could do with the arms could translate into performance in a tennis swing, or a golf swing, or a baseball pitch. Studies that have shown that when you're selecting students for collegiate teams, doing passive measurements of just their body and forces that you can put out, we're talking actually very day to day forces, that device that you could use Harmony to test could predict performance outcomes later in a sporting career.