# MATRIX VIRTUAL TRAINING CYCLE A CYCLE OF INSPIRATION

Sometimes, two things are just meant to be together. That's how we felt about our exclusive, fully connected console technology and our precision-engineered training cycles. When we first started to consider this powerful combination, the trend of on-demand and connected fitness was hotter than ever. We also noticed more and more fitness enthusiasts opting for virtual training sessions. Soon we realized that in-person cycling classes simply weren't for everyone, whether due to lack of time, confidence or dislike for working out in large groups. So began our journey into revolutionizing the virtual training space, by offering a high-performance cycle that allows users to connect to the programs that motivate them when and how they want on the cardio floor.



## **AN EXCITING FIRST LOOK**

Development began back in 2018, when we prototyped an indoor cycle that boasted the connectivity of other products often found on the cardio floor. The response to this first prototype was enthusiastic, to say the least. The facilities we serve loved the potential for this new pairing to advance indoor cycling and create an experience that would engage users of all kinds. Now people who wanted to take on exciting group cycling classes could come to the facility and get the complete experience without having to wait for a studio session that fit their schedule. It also made the studio experience more accessible to those intimidated by high-energy cycling classes, letting them work at their own pace on the cardio floor. Our partners could even imagine our Virtual Training Cycle being used as a steppingstone for people who wanted to eventually transition into full studio classes when they were more comfortable with their abilities. And of course, everyone who got a sneak peek at our console-and-cycle combination loved the idea of offering on-demand access to Matrix-exclusive workouts, connectivity to popular fitness apps and user devices and virtually endless entertainment options at the rider's fingertips.

#### SOLVING FOR STABILITY & SWEAT

With all this positive feedback in mind, we got started on what would become our Virtual Training Cycle. We began this ground-up development process just like all of the others, by listening to facility owners, end users and service technicians to identify the key requirements the product must have. First, we needed to make sure the cycle was completely sweat-proof; after all, our new cycle would see many high-intensity workouts every day. By refining some of our techniques at the manufacturing level and putting the product through rigorous sweat-proof testing, we were able to identify where sweat tended to pool. As it turned out, sweat often collected near the console and at the front of the base of the cycle. With these findings in mind, our team of industrial designers adjusted the console angle to ensure that sweat never collected near the screen so it would remain operating for years to come. But what about the sweat collecting near the base? Sweat collecting near important power and connectivity ports could cause these critical components to malfunction. To overcome this, we custom designed a shield for the electronic ports that diverted sweat away from them, increasing the durability of the product and its electronic components. To bring this powerful solution to the cardio floor, we also had to provide a completely immersive console experience while maintaining the high-performance cycling workout that cyclists craved. That

... we also had to provide a completely immersive console experience while maintaining the high-performance cycling workout that cyclists craved. meant that the larger, 56 cm / 22" console needed to be completely stabilized, without shaking of the screen seen in competitive designs. Furthermore, its fixed position needed to be optimized for users of all sizes. Our designers and engineers got to work by first reinforcing the console mast with industrial-grade steel, ensuring it would never wobble or

shake during even the most intense rides. To find the optimal height, a wide range of people were invited our headquarters to try out the cycle. Working with a broad spectrum that included everyone from beginners to cycling enthusiasts, we had them ride to a variety of different content and at a range of intensity levels. Once we discovered a console height that accommodated users below 152 cm / 5' tall and well above 183 cm / 6' tall no matter how they wanted to ride, we knew we had found the sweet spot.









#### **REDESIGNING FOR THE CARDIO FLOOR**

Perfecting the sweat-proof design and the position of the console was not all we had to think about. We also had to consider what we needed to do to bring the cycle from the studio environment to the cardio floor. The first modification we made was transitioning the cycle from a fixed-wheel design to a freewheel design. The freewheel design provided a more secure experience for beginners on the cardio floor, because when the rider stopped pedaling, the pedals stopped, even though the flywheel kept going. Since traditional group training cycles featured a selfpowered design, we also had to add specialized ethernet and power cable ports to the frame of our new cycle. These pathways

made it easy for facilities to plug in the cycle virtually anywhere on their cardio floor without having a tangle of cords marring the cycle's clean aesthetic. Yet perhaps one of the most important things was what we didn't change. Competitive research revealed that other

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cycles compromised ergonomics in order to add consoles and connectivity features, often changing handlebar and seat designs. In using the same multi-grip handlebars and ergonomically contoured seat used in our tested and proven indoor training cycle, our new cycle offered comfort in its touchpoints that other home and studio cycles couldn't match.

#### REFINING THE INTERFACE & THE EXPERIENCE

There was still more to do when it came to making the studio cycling experience accessible to someone who had never tried it before. We had to make sure the rider was close enough to the console to comfortably control their workout and get the immersive feeling of a true studio class. We further streamlined operation by taking the resistance controls off the cycle and bringing them to the console touchscreen. With the controls on the touchscreen, they were easy for beginners to adjust, while also providing smooth resistance changes and easier repeatability. Going even further, we integrated automatic resistance changes synced with the ride, so users could let the cycle make the adjustment when they were riding up a hill or their instructor turned up the intensity. We even managed to streamline the look of the console, creating a more refined aesthetic fit for the cardio floor.

### A NEW WAY TO RIDE. EVERY TIME.

When every element of our new combination was in precisely the right place, our Virtual Training Cycle was ready. Now facility owners can put it on their cardio floor knowing that it will work with a wide range of content providers, appeal to an even broader spectrum of members and look as sleek and dynamic as anything else in the facility. Best of all, no matter when their people come to work out, they can ride the way they want to. Whether they're challenging themselves with exclusive workout programs, enjoying their favorite entertainment or taking on a group class that's as immersive as

it is intense, our Virtual Training Cycle will deliver an experience that's everything they want it to be and so much more.

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