

From apples to apexes: Premier racing simulation venue in rural Ontario looks to redefine driver development

MARK HACKING

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On the lower level of the Paddock Motorsports Simulation venue are eight Eight Multimatic-built simulators that sit far enough part for coaches or other drivers to walk between and watch.

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Before learning the correct racing lines and braking points to power around your favourite circuit at Ontario's new premier racing simulation venue, you must walk among the apple trees.

Nestled in the rolling hills and gravel roads of Kimberley, Ont., about 30 minutes southwest of Collingwood, Paddock Motorsports Simulation sits on a former cider-producing farm.

The barn housing these high-tech machines looks, at first glance, more suited to a fall wedding than a lap at Le Mans. There is no neon glow through the windows, no arcade soundtrack leaking into the parking area, no obvious hint of the serious motorsport hardware waiting inside. That is part of the trick.



The outside view of the restored barn, which sits on a former cider-producing farm.

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Step through the front door and the barn first presents itself as a comfortable lounge, with space for catered meals and a large screen where guests can watch the virtual racing unfold. Despite the racing paraphernalia on display, the environment feels social first, technical second. The machinery is kept out of sight for a moment longer.

One level below, however, the mood tightens. Eight Multimatic-built simulators sit in clean formation inside a room spacious enough to hold a dozen or more.

Facility owner Scott Maxwell wanted ample space for drivers, coaches, engineers and the occasional gawker to move without tripping over one another. He also wanted a facility that felt less like an arcade and more like a laboratory.



Owner Scott Maxwell talks to guests on opening day at Paddock Motorsports Simulation on April 11.

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Technical support ensures the system is working correctly. This area can also be used by coaches or others to review data and sector times.

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While Maxwell eyes driver development as a part of The Paddock's future, for now, it caters to corporate events, private groups, racing leagues, karting families and track-day drivers. A private, two-hour driving experience for up to eight drivers starts at a flat rate of \$750, working out to less than \$94 per person. Each additional driver over eight costs an additional \$75.

Maxwell says when Paddock begins its driver development phase, he wants it done properly: by appointment, with coaching, engineering support, data traces and a benchmark lap. In other words, a real-world racing program based in the virtual space.

“For this level of simulator, the most valuable thing [to gain from using it] is learning the track,” Maxwell said. “If you arrive at a real track 10 minutes ahead of the curve by knowing the braking points and the correct gear, that’s real money.”

For more than three decades, Maxwell has been one of Multimatic's most valuable partners: racer, test driver, development expert, Le Mans class winner and, on a good day, a human lie detector for chassis engineers.

His résumé is not just a list of race results and championships. Maxwell helped develop the Ford Racing Boss 302R in 2010, then co-drove it to its first Grand-Am victory in 2011. His expertise helped shape the GT4 Aston Martin Vantage V8 for Grand-Am GS competition.

But he's perhaps best known in development circles for his work on all four versions of the modern Ford GT: the road car, the race car, the Mark II and the Mark IV track car. He is highly valued because he can instantly feel what a chassis is doing, describe it clearly and help engineers translate that feedback into raw speed.

Multimatic has built a reputation on that same practical wavelength.



Racing paraphernalia on display next to the lounge area by the entrance on opening day on April 11.

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The lounge was designed as a space to hang out or have a catered meal.

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The Canadian engineering firm's fingerprints appear on all sorts of road and race car projects for all sorts of manufacturers, including complete assembly of the Mercedes-AMG One, chassis work on the Aston Martin Valkyrie AMR Pro and providing the chassis for the championship-winning Porsche 963 LMDh. Currently, the firm builds and campaigns the factory Ford Mustang GT3 racing cars.

Now the Maxwell-Multimatic relationship has taken a left turn and arrived in small-town Kimberley, where Maxwell's wife has a family connection.

On the day I visited, my friend became the test subject. He was strapped into a virtual Mazda MX-5 at Canadian Tire Motorsport Park. While my friend worked

out the rust around a track he's competed on before, Maxwell explained where professional-level simulators offer real value and where they fall short.

"Simulators are getting closer and closer to real, but they'll never be the same thing," he said. "You can make them quite easy to drive, but the realism starts to fade away as you make it easier." This is the key point: Paddock Simulation is not there to make visitors feel heroic, it's engineered to provide useful information.

The parts list bolted onto each simulator backs up his claim. The tube-frame chassis is designed and hand-built by Multimatic. Its direct-drive steering motor is a Simucube 2 Ultimate from Finland. The steering wheel is not a replica, but the same Multimatic-designed wheel used in the Mustang GT3 and Ford GT Mk IV. Sparco seats and harnesses hold drivers in place. Heusinkveld Ultimate+ pedals provide the stopping power, capable of withstanding brake loads up to 140 kilograms.



A view from above of the Multimatic-built simulators.

The technical support team is led by Jamie Leveille, Paddock Simulation's simulation systems lead consultant. His day job is technical director of vehicle dynamics at Multimatic, where his work includes the on-track development of the company's advanced suspension systems, assisted by the sort of professional motion simulators used deep in the engineering process.

Then come the physical cues you notice only until you stop noticing them. A SimXperience G-Belt tightens and releases under braking, acceleration and hard cornering. Four ButtKicker tactile transducers – two in the seat, one at the pedals and one at the steering motor – feed low-frequency vibration through the rig to replicate curbs, bumps and surface texture. A curved 57-inch Samsung Odyssey Neo G9 monitor wraps the peripheral view around the driver.

All things tallied up, a custom-built simulator set-up just like this can be yours for about \$60,000 – and Multimatic will build it for you and deliver it to your home.

For my friend, the MX-5 session was a useful reminder of what a simulator can and cannot do. You do not get true weight transfer, real fear or the cost of bodywork. But you do get repetition, data and consequences small enough to survive. In my friend's case, that meant a few spins and at least one huge moment where a real car would have made the rest of the afternoon paperwork-intensive. For him, it was the chance to shake off the rust before potentially taking to the track later this year in an Enduro Elite series event.

Of course, this facility doesn't pretend the virtual world has replaced the real one. Its more sensible promise is that, with the right hardware and the right people watching, a driver can arrive at the track knowing a little more. That seems worth raising a glass of cider to, even if the cider is long gone.

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