



TINKERING

CHANGING LIVES

THE OMEO STORY

by Lucy Corry

Kevin Halsall is an ideas man. Nothing makes him happier than solving a problem. After watching his friend Marcus Thompson, a paraplegic, struggle to get around in his wheelchair, Kevin started thinking about ways he could help.

Kevin is an engineer. His first flash of inspiration came after he used a Segway – a kind of self-balancing electric scooter with big wheels. “I’ve always been drawn to out-of-the-box solutions,” he says. “After I had my first ride on a Segway, I realised it was the perfect thing to start tinkering with.” Kevin soon began to imagine a wheelchair that would free up the user’s hands. He mentioned the idea to Marcus, who borrowed a Segway so he could experiment himself. Marcus began by attaching a kind of seat. Kevin came round to take a look. “We decided that we were probably on to something,” he says.

Kevin’s first thought was to design a part that could be bolted onto a Segway, but then he realised they’d get a better result if they opened up the base; then they could adapt the electronics. It was time to make a decision. Should they design a kitset so that people could customise a Segway themselves? Or should they build a whole new mobility device?

“There were pros and cons on both sides,” Kevin says, “but deciding to work from scratch and build something of our own was a big turning point.”

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LIFE CHANGING

Traditional wheelchairs are manual; people “power” them with their arms. Most electric wheelchairs have a kind of joystick. But the Omeo has what’s called active seat control, which makes it completely hands-free. Users operate the chair by leaning forwards, backwards, or side to side. “It’s as though your body becomes the joystick,” Kevin says. “People don’t feel like they’re driving something – the chair feels part of them.”

Marcus says his Omeo is life changing. “I can now do things others take for granted, like mow my lawns. It might sound mundane, but the first time behind a mower after my accident was such a buzz.” The chair has given Marcus all kinds of freedom. “In the past, when I talked with people who were standing, I experienced a real disconnect. They had to crouch down. They talked over me. Sometimes, they even talked about me, like I wasn’t there!” Marcus says this doesn’t happen in an Omeo. “You can be part of a group and move in and out of that group in a natural way. You can express your body language. You become part of the flow.”

GOING VIRAL

Over the next four years, Kevin’s Ōtaki workshop was littered with discarded parts from countless rejected ideas. He continued to tinker, and Marcus continued to be the test pilot. Finally, they had a prototype they were happy with. Kevin called it the Omeo. Then he entered it in a design competition, hoping to find investors to fund the next stage of development. “We made a short video,” Kevin remembers. “It was just me sitting in the chair, babbling on, then a few shots of Marcus in the chair, throwing some basketball hoops.”

The video was never meant to go on the internet, but somehow, it was picked up by a TV network in Australia. “They posted about us on social media,” Kevin says. “My daughter said, ‘Dad, you’ve gone viral!’” Kevin didn’t know what that meant, but he soon found out. The video received 20 million hits. Thousands of people emailed him. They all wanted one of his mobility devices.



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WIDE OPEN

The Omeo has two electric motors, powered by batteries. It has a top speed of 20 kilometres an hour and a range of around 40 kilometres. Kevin says his chair fills the gap between traditional wheelchairs and cars. "You can travel a long way in an Omeo to all kinds of places. They make getting around much easier. If you go out, you don't have to transfer from a wheelchair to a car and back to the wheelchair. You just get in the Omeo and go."

One of the most liberating things about an Omeo is that it can go pretty much anywhere, including the beach. Users can switch their wheels to an off-road set. Kevin reckons only a tiny proportion of people in wheelchairs ever get onto a beach because it's just too hard. In fact, he says a lot of places are tricky. "You don't have to be on much of an angle to tip over." But in an Omeo, the seat stays level and balanced no matter what. "You don't have that risk of falling forwards or backwards, even on a steep slope," Kevin says. "We've taken people to the beach in an Omeo, and the look on their faces when they realise the possibilities. The gates swing wide open."

You just get in the
Omeo and go.



AN OMEO UP CLOSE





ADVICE

It took the Omeo team a long time to turn their ideas into reality. Kevin has some advice about this. "You need to be a bit pigheaded. Don't take no for an answer." He also says you need to be totally immersed in a project. "You'll face lots of problems. People will say your idea won't work. So you have to really believe in what you're doing." It doesn't stop there. "Even if what you've made is a world first, that's only part of the journey. A whole lot comes next, like figuring out how to make your product on a large scale and how to reach customers."

Marcus admires his friend's focus. "Once Kevin has an idea, he likes to keep going until he gets it right," he says. "As a designer and an engineer, he has wonderful ideas. But more importantly, Kevin's a really good listener."

HOT DEMAND

The Omeo is now a sleek, eye-catching machine in hot demand, and the company is expanding fast. Yet Kevin and Marcus say they've only scratched the surface of what's possible. "We want to find ways we can help people with higher-level injuries," Kevin says. There's also the possibility of building a static version of the Omeo to use with a virtual-reality headset. "There's lots of interest in the benefits of creating motion in this way, especially as a form of therapy," Kevin says. "We're always going to be developing. There's so much more we can do."

THE MAGIC OF MOVEMENT

Marcus Thompson loves surfing, waka ama, archery, and basketball. He broke his back in a skiing accident sixteen years ago. While this hasn't stopped him from enjoying his favourite sports, being limited to a traditional wheelchair definitely made taking part more challenging. But Marcus persevered. He believes movement makes people happy.

"So much joy comes from being able to run or dance or feel the ground beneath you," he says. "When you're in a wheelchair ... it's really important to be able to move for the sake of moving, not just to get from A to B. For me, the Omeo taps into the subconscious need for movement that we all have."

While the Omeo's sleek design makes it eye-catching ("it goes with all my outfits," Marcus jokes), it also becomes invisible compared with regular wheelchairs. "You move with such efficiency and grace," Marcus says, "and that gives you confidence. People will come up and ask me about my Omeo, and it's great that it starts a conversation, but after a while, the chair disappears and they just see you."



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by Lucy Corry

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Published 2020 by the Ministry of Education,
PO Box 1666, Wellington 6140, New Zealand.
www.education.govt.nz

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Enquiries should be made to the publisher.

ISBN 978 1 77669 938 4 (online)
ISSN 2624 3636 (online)

Publishing Services: Lift Education E Tū
Editor: Susan Paris
Designer: Jodi Wicksteed
Literacy Consultant: Melanie Winthrop
Consulting Editors: Hōne Apanui and Emeli Sione



SCHOOL JOURNAL LEVEL 3 MAY 2020

Curriculum learning areas	English Technology Health and Physical Education
Reading year level	Year 6
Keywords	adaptation, challenge, change, design, development, disability, engineering, idea, independence, innovation, Kevin Halsall, Marcus Thompson, mobility, Omeo, problem, prototype, Segway, social media, solution, technology, wheelchair