

## Virtual reality brings very real rewards to local student



**By Brock Weir**

As the New Year approaches, now is the time people start to make resolutions. Chances are, chief among them is to start exercising again.

But exercising in the great outdoors during this time of year can be challenging at best and monotonous at worst. Local student David Gu, however, says it doesn't have to be that way – but first you have to suspend your own reality and get into a virtual world. Gu's exploration of Virtual Reality when it comes to keeping fit and having fun helped him score the 2017 William F. Bell Entrepreneurial Award for his innovation.

“A lot of times indoor exercise is very boring because there is not a lot of scenery change going on around you,” says David, who is currently in Grade 12 at TMS Schools in Richmond Hill. “The idea I had was in virtual reality (VR), it is easy to make the environment around you be very interesting.”

Working with a team, one of its members brought in a piece of low-impact exercise equipment. It was a device to keep your feet moving while you sit in a relatively recumbent position. But still, you're in your own living room or bedroom with nowhere to go. “We got the idea that if we could have a person put their feet in that, [put on a headset] and walk around in a virtual environment, wouldn't that be so much more exciting than jogging on the spot or just walking on a treadmill? The app can put you in a park environment so the user uses equipment and can walk around the parking doing various exercise movements with their arms and legs.”

And never even leave the room.

While in the heat of competition, David says when the group started putting the finishing touches on the product, members from nearby groups came over to see for themselves. They were, essentially, the first Beta-testers of the VR app, providing feedback along the way.

It played well and, looking ahead, the sky seems to be the limit in just how far they can go, with options being explored to give the app user the opportunity, for instance, to jog virtually around the pyramids of Egypt, do laps around Rome's Coliseum, or stroll leisurely by the Leaning Tower of Pisa.

“We found our system is very flexible and can be used for any kind of exercise equipment that involves you moving around somehow,” says David. “Our original environment was this very relaxing park environment with trees, benches and a path you can follow with relaxing music and bird[song], but you can replicate sites for people to see more of the world and it could open up a new demographic.”

“As a team we have been talking a lot about what's next and we think it has a lot of potential,” says David. “One of the things we're talking about is its [application] for rehabilitation and physical therapy. We're talking to more people we see as potential users of this product because I think the best way to make something is to talk to the people you think will use your product. We have been reaching out and sending out surveys to see the direction we think this is going and I think we have a well-developed product we're

improving based on that, maybe even releasing something.?