

Robotics students develop innovations for world around them



By Brock Weir

Lester B. Pearson students want you to get connected ? regardless of age or physical challenges.

Students in LBP's Robotics Club are headed to Thornhill this Saturday to face off against other teams from across York Region in the Regional championships of the First Lego League.

Part of a program run by Lego International with a quarter of a million students participating worldwide, the organization challenged them to come up with innovations to help improve the way we learn and, with a little creativity, our local students came up with some great innovations to aid learning in a way that transcends age as well as physical limitations.

Split between two groups, the 'Classy Cyborgs' developed a product to improve the way blind and visually impaired children learn Braille, while the 'Robot Rulers' developed an app to help seniors become tech savvy on their iPads with a particular focus on email: the iSenior App.

This Tuesday, the 'Robot Rulers' had a chance to put their app into action, sitting down with the Computer Club at the Aurora Seniors' Centre to explain their product. Team leaders at the Centre already had a handle on what the kids had up their sleeves, being instrumental in providing feedback on the needs of their demographic, but ahead of the initial demonstration students were excited to show off their brainchild.

'We had a bunch of people come in from our Seniors' Centre who talked about some of the problems they had,' says Grade 8 student Jessica Latimer. 'At first we had some ideas that were a little out there, but we narrowed it down to some that seemed more possible for us and things we could actually achieve in the amount of time we had.'

Part of the process, she adds, was looking at the other products already on the market, but these left a lot to be desired.

'We found they were not as entertaining as they should be, and they don't show you how to use some specific applications. We decided to do something that focused on a specific application to fulfil the main need we felt from the seniors, which was communicating.'

Looking at the broad and varied ways people communicate today, Jessica says one of the main problems in seniors becoming fully connected is the technical jargon that often goes into instruction tutorials without explaining what they actually are or how they function.

?The tutorials we saw that the seniors were given all seemed boring and difficult to follow,? says Jessica. ?They gave you what you needed to know in technology terms, but didn't give you any definitions. We decided to do something a little bit more straightforward, but entertaining at the same time.?

For instructor Lisa Andrade, the development of the iSenior was a learning experience for all concerned.

?The students were surprised that, having grown up with technology, there are those people out there who are struggling with understanding it, particularly since it is changing constantly,? said Ms. Andrade. ?[The club] is a pretty motivated group and very enthusiastic, so they quickly found out that whatever they put their minds to they would come up with something very creative. I was impressed that as they were doing their research and discovering more in their topic areas that they were becoming more passionate about the topic and wanting to really, truly help these people do something they struggle with.?

Saturday's competition, which will be held at St. Robert's High School in Thornhill, has three components. The first part is the Robot Games, where students have to build a robot that has to follow a certain mission. The second aspect is innovation, where they will be presenting their ideas to judges. The third is dubbed ?core values? where the kids can demonstrate how they worked collaboratively to bring their ideas to a reality.

?They may not know it yet, but they are learning how to be empowered and talk to people in the industry who are experts, who they can get ideas from and build their own ideas further,? says Ms. Andrade. ?We hope that way they are learning about discovery and how exciting learning can be when you think about it in a practical way, and also just having the fun of working with the team and accomplishing something together.?

?[As a parent instructor] this is probably the most rewarding experience I have ever embarked on. We believe very strongly in the philosophy and the values of this organization and what we're teaching the kids.?
And the kids believe in it too.

?Just being able to make a change at all is cool, and something like this is going to impact our Town itself, and this seems like something I should be doing,? adds Jessica. ?We have the benefit of working with a bunch of new people, so I think it is a great way to make a difference in any way I can.?

Next week The Auroran will introduce you to the Classy Cyborgs, their creative way to help their visually impaired peers learn Braille, and their exciting plans for the New Year.