

Aurora teen puts new spin on cycling



By Brock Weir

As a Grade 11 student at the University of Toronto School, Aurora's Heather Tang has seen cyclists get into some pretty precarious situations on busy city streets.

These experiences helped inspire a practical solution to 'human-powered commuting' developed by Ms. Tang and seven other team members, bringing home top marks from the Shad Valley Entrepreneurship Cup in Waterloo.

'VISBL' is a new twist on an old product, transforming a typical athletic jacket into something to keep cyclists safe and, yes 'visible' on the road. It took first prize in Best Overall Project, Best Marketing Plan, Best Business Plan, Best Application of Theme, and third place in Best Application of Scientific Principles.

'The prototype was very rough in Saskatchewan,' says Ms. Tang of early iterations of the project developed at the Shad Valley camp over the summer. 'We used this old jacket one of our supervisors gave us from his son's early years, but when you move into the Shad Cup stage, they actually give you some investment money so you can go out and buy the resources you need.

'It looked amazing as a functional prototype. It had light detectors, so that with varying degrees and intensities of light it would actually flash different patterns. It is pretty sick!'

The Shad Valley program brings together some of Canada's best and brightest high school students to put their heads together to form common goals and, often, solutions to everyday problems. This group was tasked with finding a solution to human powered commuting.

'It was pretty easy to come up with the idea, but what was difficult was cultivating it in making sure that all the dynamics worked together well,' says Heather. 'We learned the strengths of each of the members and that really helped us in the process. When each of us had such a strong opinion, there is going to be conflict, but the best way to resolve that is to know what is going to be best for the team.'

Early on in the project, they considered new street infrastructure as a solution to human powered commuting 'something like a bus shelter where cyclists can not only take shelter from the rain and elements, but also find stations to pump up deflated tires, and tools to do some repair and replacement as needed. That, however, proved a bit more difficult, so they shifted focus to something which could be picked up by the everyday consumer.

Heather describes the finished jacket as a pretty typical jacket, but souped up with some circuits, and a bit of battery oomph.

?We made it breathable and perforated in the armpits and all that jazz, but when you gesture with your hands or click the circuit [between the joints of your thumb and forefinger in fingerless gloves] you can have turning signals on your back,? she says.

?The system they use right now is you gesture with your hands, but we've found that to be very ineffective, and also dangerous with cars whipping past in Downtown Toronto. It could be disastrous. Built-in lights could help out a lot more, especially at night.

?USask taught us how tactfully placed lights would actually mimic the motion of a person more than if it was just a reflective vest. When I am driving downtown with my parents and see a driver on the road at night, it is very hard to distinguish them between a stationary light and a person. We decided that if you were to put the lights specifically on each joint, then when the biker is moving it would look a lot more like a person who is biking than a stationary lamp post or something of that sort.?

Judges, in various realms of professional life, were very impressed by the prototype. The group received some sage advice on how to tweak their plan, and they're not averse to taking this prototype to the next level, and working to seek out partners to help them achieve their dreams. She's very driven, but might stop short of entering into Dragon's Den.

?I don't know if I could handle the harsh criticism of the dragons!? she says with a smile.

As she finishes up Grades 11 and 12, Heather is hoping to follow her brother, who is currently in pre-med at Columbia University, to another American school. The ultimate goal is Princeton, to focus on either business or science.