

gizmo

A W A R D S 2 0 1 4



THE GIZMO AWARDS are a celebration of Tetra’s volunteer engineers and technicians who design and build ingenious devices that overcome barriers in the physical world, bringing independence and opportunities to people with disabilities.

The Tetra Society of North America was founded in 1987 by Sam Sullivan, a tetraplegic whose life was revolutionized by a volunteer engineer. Over the past 27 years, Tetra’s volunteers across Canada and the United States have created an estimated 8,000 life-changing devices – or, more appropriately, gizmos.

The 2014 Tetra Gizmo Awards event in Vancouver will recognize winning

assistive device projects in five categories – as selected by volunteers. Tetra will also recognize and thank seven long-serving volunteers from Vancouver and elsewhere with the presentation of Lifetime Achievement Awards.

Gregg Harris, of Burnaby, falls into both categories. He will receive the Sam Sullivan Award for his work on a device that helps a Vancouver woman to independently access her bed. He will also be one of four BC Lifetime Achievement Award recipients in appreciation of the 121 assistive devices he has created over his 15 years with Tetra.

“I volunteer with Tetra because it’s so rewarding,” he said. “I’m a person who loves to help people.”

His employment background is stratospheric, from Canada’s legendary Avro Arrow to NASA’s Apollo spacecraft, but his first project after joining Tetra in June 1999 was a textbook example of an elegant engineering solution.

“It was for a lady with multiple sclerosis who had no movement below her neck. She wanted to be able to open a glass sliding door so she could leave the house.”

His first thought was to install a remote control power mechanism on the door, but instead moved the handle to the lowest part of the door frame. “She could push it open with her wheelchair foot rests.”

In addition, Tetra will be presenting Lifetime Achievement Awards to John Connor, of Mission, who serves both Abbotsford and Vancouver chapters, and Randy Schellenberg of the Vernon chapter who has worked with Paralympians Sonja Gaudet (curling) and Josh Dueck (alpine skiing).

Lifetime Achievement Awards will also be presented to Dr. Leonard Lye of Memorial University, St. John’s, NL; Sam Barnes of Mississauga, ON (Peel Region chapter); and Mike McNally of Hamilton, ON.



Sonja Gaudet



SPECIAL GUEST: SONJA GAUDET, PARALYMPIC WHEELCHAIR CURLER.

“Pressure? Canadians always have pressure on them when they are curling, because we are the top curling country. Pressure is just what you put on yourself.”

Today’s special guest Sonja Gaudet will tell you what it’s like to be the world’s most accomplished wheelchair curler.

The Vernon, BC athlete took gold medals from the 2006, 2010 and 2014 Paralympic Winter Games, and also won gold at the 2009, 2011 and 2013 World Wheelchair Curling Championships.

“Winning a gold medal feels incredible,” adds Gaudet. “But it’s really about the bigger picture. As a team, we work so well together, which really gives the message about the Paralympic games – the focus is on ability, which is something that people with disabilities want to see in everyday life.”

Vernon Tetra volunteer Randy Schellenberg created a special wheelchair curling brace for Sonja back in 2009 which she uses in training.

Tools for Tykes Award



For the design and construction of a device that most assists a child or youth with their development and growth.

DEVICE: Car seat transfer pulley

VOLUNTEER: Dave Doman



CHILDREN’S AWARD: JAYA GARNER WITH GREG, HER FATHER.

A pulley system mounted to the roof rack of a family car made it easier to transfer five-year-old Jaya Garner, of Surrey, in a comfortable and dignified way.

Greg Garner:

We had a small car and Jaya, our daughter, was growing and getting heavier. It was getting harder to get her in and out of her car seat without tipping her or straining our backs.

We contacted Tetra and they put us in touch with Dave Doman who came over and looked at the situation and came up with a solution.

Our family car was a Jetta, which is small and low to the ground. It was difficult because you would have to lift and reach to get Jaya into her car seat.

Dave installed a pulley system in the back of the car, which supported our daughter’s weight as we maneuvered her into her car seat. It allows you to guide her into the seat without having to take her body weight.

The device clamped onto the roof rack on the car. Dave sawed into it and created a U-shaped bar that was strong enough to hold her weight. She wore an MEC climbing harness that made the whole thing safe and secure.

Although we now have a wheelchair-accessible van, this project made a huge difference to us.



Quality of Life Award



The solution that most dramatically improves the independence or integration of an individual within their community.

DEVICE: Sling/vest

VOLUNTEERS: Amanda Bremner, Clarissa Gavino



QUALITY OF LIFE: HEATHER MCCAIN DEMONSTRATES HER SLING.

Deceptively simple, this unobtrusive design converts from a vest into a sling, allowing Heather McCain, 34, of Vancouver, freedom to get places that her walker and wheelchair wouldn’t allow.

Heather McCain:

I have to support my arms – if they are down for 10 minutes or more it causes pain and swelling in my collarbones, because of my arthritis.

I cannot use regular slings because they have a thin piece of fabric that goes over my collarbone and that pressure is too painful. I cannot have anything pressing down over my collarbone. This sling, because it’s built as a vest, distributes the weight more evenly.

I can wear this to a meeting, and it’s a vest – it doesn’t scream ‘adaptive device.’ It blends in and looks good. If I walk around with my arms in the sling, it looks just like I’ve got my hands in my pockets.

I’ve been doing a lot of work to improve my legs so I don’t have to use a wheelchair any more, but I need a walker to support my arms. But the sling does just that.

This allows me to access trails that I can’t access with a walker. I went on a hike to Lighthouse Park and scrambled up rocks and enjoyed getting out on paths I hadn’t visited in a long time.



Sam Sullivan Award



The solution that defines our overall mission to support people with disabilities living in the community to be more independent.

DEVICE: Leg-lifter

VOLUNTEERS: Gregg Harris, Harry Hardy



FOUNDER'S AWARD: MARILYN BRIDGE RETAINING INDEPENDENCE.

This ingenious device allows Marilyn Burbidge, 67, of Vancouver to get into, and leave, her bed independently. She has a progressive muscle condition and is striving to be as independent as possible.

Marilyn Burbidge:

I have a progressive muscle condition, inclusion body myositis, which is similar to ALS – it will affect my whole body, although not my lungs, heart and brain.

My occupational therapist advised me that I need to be thinking of my future. The first thing I did was get myself a hospital bed, but I found I was starting to have difficulty lifting my legs.

I want to be independent as long as I can, so my OT suggested that I approach Tetra for help. I was introduced to Gregg and Harry, who were both very welcoming – they asked thoughtful questions and listened to everything I had to say. I told them that I didn't want to have machinery attached to the ceiling or the wall; I wanted something that would tuck away out of sight.

Once they knew what they needed to build they made it very quickly.

The lift means I can get up and down without having to wake anyone and ask for help. It's great. It gives me independence.



Innovation Award



Awarded for the design and construction of an ingenious approach to a unique problem, or a new, creative solution to a routine one.

DEVICE: Transformer bike

VOLUNTEER: Ron Payne



INNOVATION: VICTORIA FEIGE AND HER TRANSFORMER BIKE.

This ingenious "transformer bike" allows physiotherapist Victoria Feige, 28, of Vancouver, BC to switch between wheelchair and cycle – her chair becomes the rear wheels of this design.

Victoria Feige:

I wanted to be able to cycle to work during the summer months, as my colleagues do.

I'm a fairly petite female – handcycles tend to be built for 200-pound guys. I wanted to create my own idea for a two- or three-wheeled bike that was small, lightweight and portable. With a two-wheel bike I have problems with stability when I'm stopped in traffic, but I didn't want a regular trike – the rear wheels on this design are close enough together that when cornering you go on two wheels.

I came up with the overall design concept myself; Ron Payne worked to make it a reality. He created a footplate to give me lower body stability so I can ride further, and made it possible for me to use my wheelchair for the back two wheels.

It's incredibly versatile. I can use it with the wheelchair frame or just the two wheels.

My transformer bike is still a work in progress – we're still making improvements, such as where we put the frame of the wheelchair – but I've already ridden around the Sea Wall and cruised around the neighbourhood looking at the cherry blossoms.



Community Impact Award



The solution that has the potential to ultimately benefit the greatest number of people.

DEVICE: Accessible gardening system

VOLUNTEER: George Shipley



COMMUNITY IMPACT: TETRA VOLUNTEER GEORGE SHIPLEY.

Raised bed gardens, along with automated sprinkler systems, allow people with disabilities to grow a variety of plants at community gardens across Vancouver, BC.

Jack Tait:

I've been growing fresh produce with the Disabled Independent Gardeners Association (DIGA) for more than five years.

I live in an apartment and don't have any opportunity for gardening. I use a scooter, and the community gardens around here are so low it's impossible for me to use them – I can only reach a garden if it's set in a raised bed.

I garden with DIGA at Pearson Community Gardens, in Vancouver. George Shipley has built or maintained all DIGA's raised beds. He devised a sprinkler system at our Pandora Park gardens. He's just finished building new raised bed gardens at Woodland Park, and will be installing irrigation there later in the year.

The raised beds he builds are designed in a 'V' shape so gardeners with disabilities can get closer, and they are the correct height for us. They are also built very strong!

I enjoy the challenge of gardening – and eating the fresh produce!



THANK YOU!



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