

Fourth-Grade Winners

Susan Clay

Covington School

If you had the shaking of Parkinson's disease and were trying to drink hot chocolate, wouldn't you want a way to get the cup safely to your mouth? My grandfather has Parkinson's, so unless he takes special medicine, he can't stop shaking. If he takes medicine, he'll stop shaking, but then he can't use his muscles well, even for things like walking. Eventually, Grandpa's muscles won't be able to function because he won't be able to use them. That's where my Controlled Movement Glove comes in. While it's on, the glove's firmness will keep Grandpa's hand from shaking with less medicine, yet allow him to use his hand freely. If that is made possible, then people with tremors like Grandpa will be able to have functioning hands and a better, independent life. It could also help people like surgeons produce better quality work.

What causes the Parkinson's shaking is that a lot of faulty signals are produced by the brain. The glove will have a metal exoskeleton with sensors to pick up signals from the nervous system going to the muscles of the hand, like they do in an artificial limb. The glove will do part of the moving on its own. Its sensors will be adjusted to follow the strongest signal in order to resist the shaking. The glove would be made out of a stretchy yet strong material such as polyester or spandex.

If Grandpa had the Controlled Movement Glove, he would be able to turn on his light, button his shirt in the morning and eat his breakfast on his own. He could turn on basketball at his own will. He could hold and read a science magazine before he goes to bed. Grandpa could eat in a restaurant for special occasions, and be a part of the world around him instead of a suffering bystander. If the Controlled Movement Glove existed today, people with tremors all over the world could be active in society, creating better lives for themselves and others.

Morgan Son

Gardner Bullis School

“Wo-woah!” My neighbor Mr. Smith accidentally walked into the mailbox because of his poor eyesight.

“Did you crash into something out there again?” called Mrs. Smith from afar.

“Yes, but I’m okay!” he yelled back to her. Every day, Mr. Smith bumps into an object with his ordinary cane. This catastrophe inspired me to create the Helpicane. The Helpicane looks like a normal cane, but it has different sensors to detect what is around you. There is a GPS that activates when you say your destination. This invention guides you by gently pulling you in the direction of your destination using a motor at the bottom of the cane. A GPS locater is included, too. If you have a disease that makes you forget easily, your family can track you down if you are lost with this unique capability. There is also a health monitoring system that immediately calls 911 if you are in a medical emergency. Another special feature is that when you’re around danger, maybe around fast cars or you need to move out of the way, the cane alerts you by vibrating or by making an intense noise.

To try out my invention, I gave my first Helpicane to Mr. Smith. Early the next morning, Mr. Smith was using the GPS on my cane to go to the park! I silently cheered as I secretly followed him while pretending to be walking the dog. On my way there, Mr. Smith cruised along the road without knowing that a car was approaching him with great speed. The cane vibrated and made a noise enough to warn him that there was danger, and he swiftly strode back to the sidewalk.

This could also replace a service dog by guiding you around with the cane instead. Elders could socialize more often and this could help them get out of their shell and they won’t have to be scared of getting lost.

My invention would help the blind, elderly, the poor sighted and the disabled. With

this incredible product, you won't have to worry about any more accidents!

Jackson O'Reilly

Covington School

I have noticed that students and grownups can't sit still when they are in school or at work when they are fidgety. This creates a big problem, as it is really difficult to listen, learn and concentrate when you are focusing on sitting still. My invention, The Focus Chair, will help students and adults concentrate on learning and doing their jobs rather than on sitting still. With this product, children will have a better chance of becoming the inventors of tomorrow. Adults will improve their job performance and become more productive and inventive.

There is already something called a Wiggle Cushion used in schools to help students who fidget. But, my design is better because it is an entire cozy, cushioned chair. There's a massager in the chair, plus the chair has an iPod with earbuds that plays soft, calming instrumental music. However, the teacher's voice can still easily be heard and understood over the music. There's a spot for water bottles so you can't put it in your desk. These chairs are more expensive than Wiggle Cushions so students must have an IEP to use one. This design will help at least five children from every classroom.

Before getting the chair, Herbert, a second-grader at John Taurus Elementary School in Portland, Oregon, was throwing paper airplanes to Sherbert most of the school day. Herbert was not a good listener and was getting bad grades. It looked like Herbert was going to flunk second grade. Along with introducing The Focus Chair, Herbert's teacher used some other techniques like running laps and doing deep breathing exercises to help him focus. Herbert learned that he could focus and be an excellent student.

The Focus Chair spells success for all ages!