The Giraffe Walker

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I invented and developed The Giraffe Walker to address one of society's significant issues- the incidence of falls by the elderly and the consequent injury, loss of confidence, self-esteem and independence. "The Giraffe Walker is a self-levelling, intelligent, All-terrain Walker which allows the elderly to safely travel up and downstairs and traverse uneven surfaces." Currently, one in four elderly people fall per year and in the US every 19 minutes an elderly person dies due to their fall. These are outrageous statistics – and the basis of my invention. The Giraffe Walker's auto stabilizing design means that the elderly will have secure stability regardless of the terrain. The Giraffe Walker's legs self-adjust their height to ensure that the walker is constantly flat and balanced. Thus, the walker can go anywhere needed - stairs, sand, rock, concrete, carpet, etc. While making all surfaces accessible for the fragile elderly body the Giraffe Walker battles another issue commonly faced by our aging populating- their inability to sit down and stand up without assistance. The Giraffe Walker's unique and innovative adjusting neck allows the elderly to sit and stand independently. To achieve this result I used a combination of skills; ranging from metalwork to coding. Not only did I have to develop the physical structure using techniques such as welding, drilling and cutting metals, I had to wire up multiple circuits to allow for autonomic activation using skills like soldering and wiring. Lastly, I had to write and code an algorithm to control the walker monitoring it at all times, producing a fully automatic, intelligent walker.

Awards Won:
International Council on Systems Engineering - INCOSE: Certificate of Honorable Mention