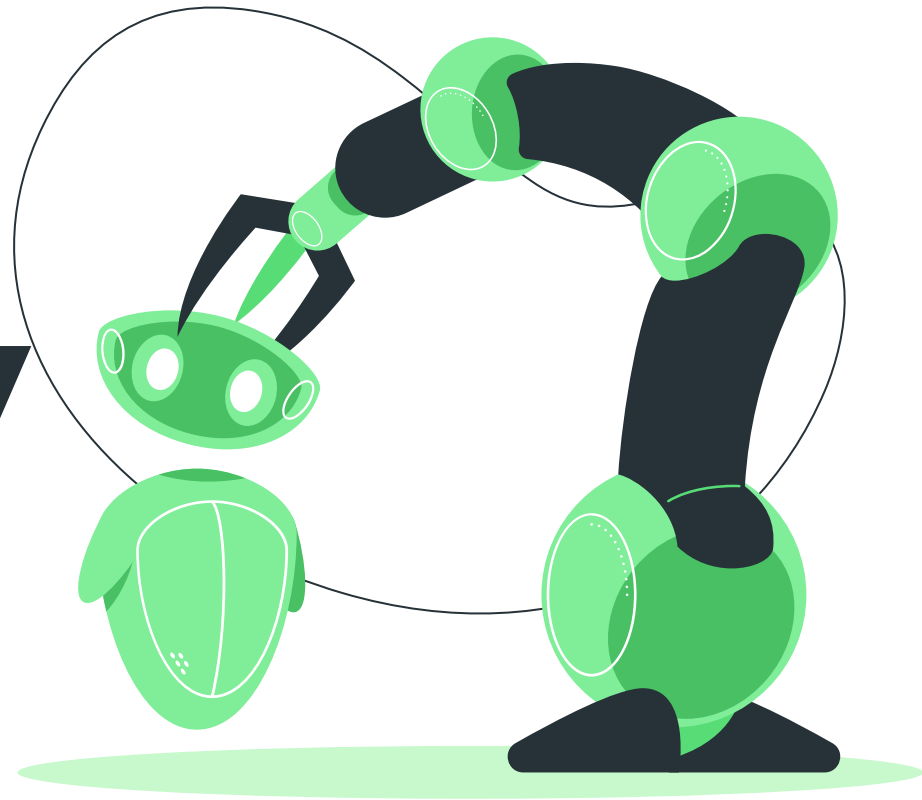


Handsfree Assistive Technology

My Quadriplegic Spinal
Cord Injury, Work & Life

Jan @ [Quad.Works](https://quad.works)



"Hello, World!"

1

About me

2

Challenges

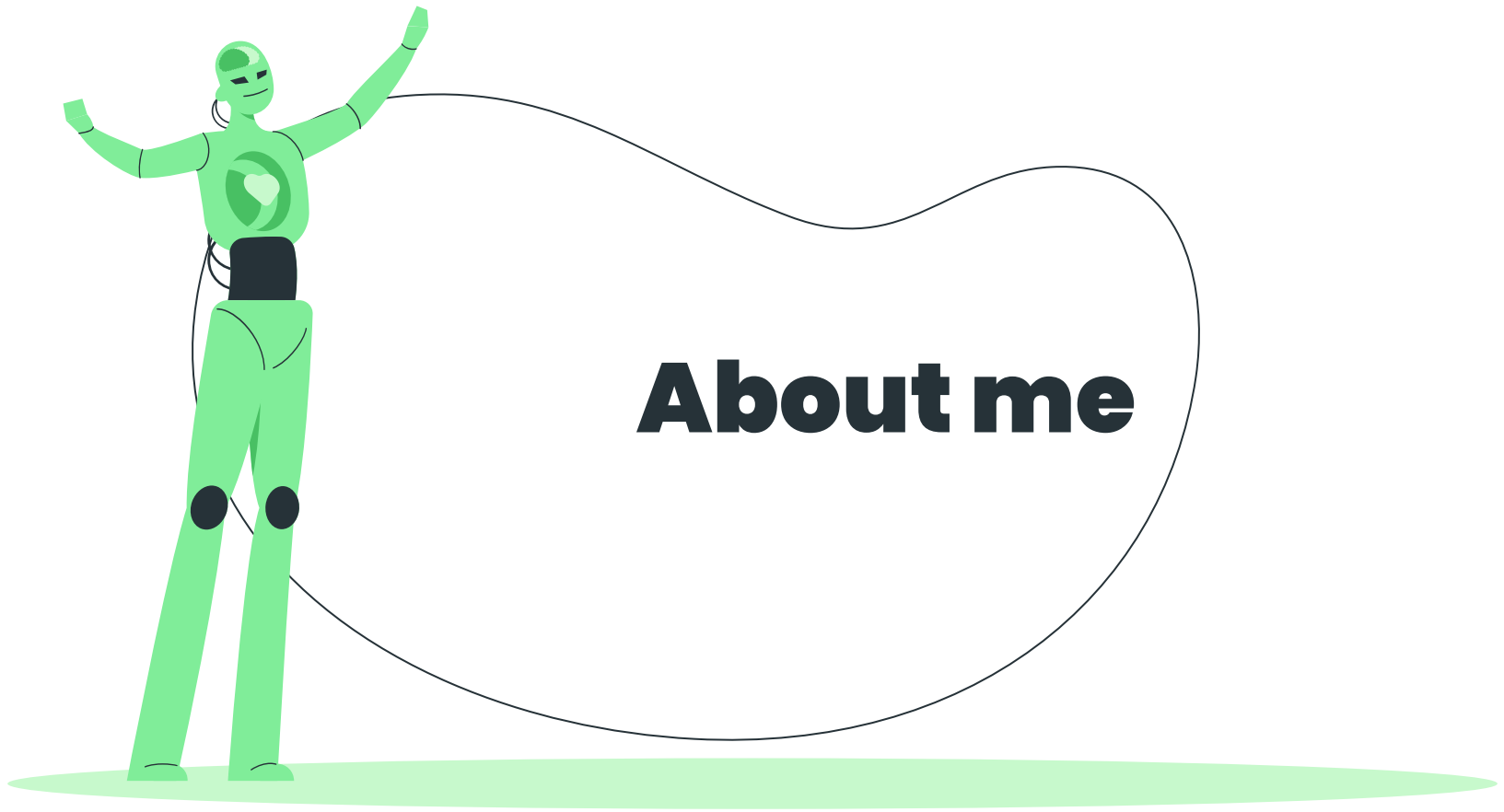
3

Solutions

4

Q&A





About me

2017 Cabo Verde

- ❑ 1.81m
- ❑ 70kg
- ❑ 35 km/h



Quadriplegia

= paralysis of all four limbs



2018 Berlin

- ❑ 1.50m
- ❑ 310kg
- ❑ 12 km/h

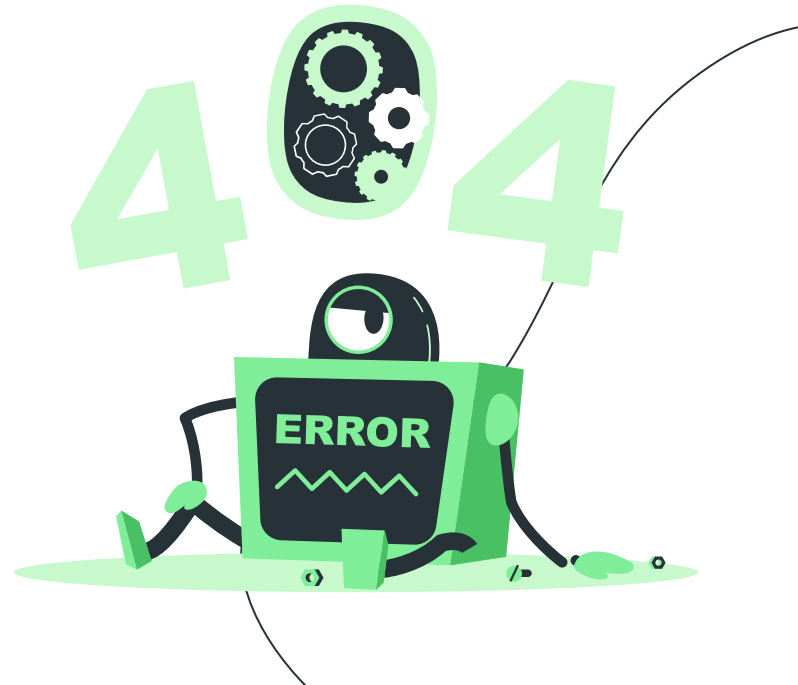


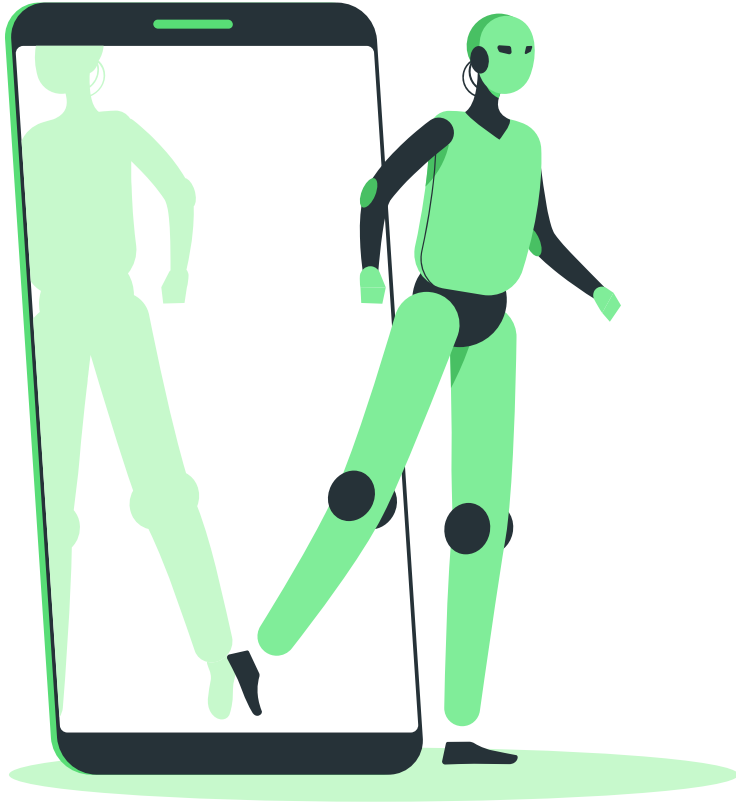


Challenges

I can't either move or feel my hands or legs nor myself...

- drink
- eat
- cough
- wash or brush teeth
- go to bed
- go to toilet
- walk
- click a keyboard, computer mouse or touch a smartphone



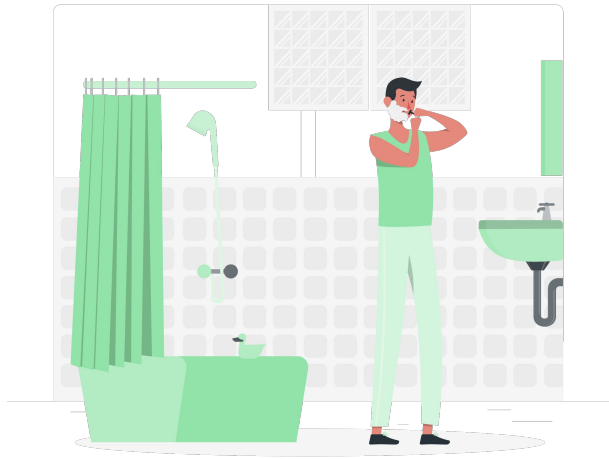


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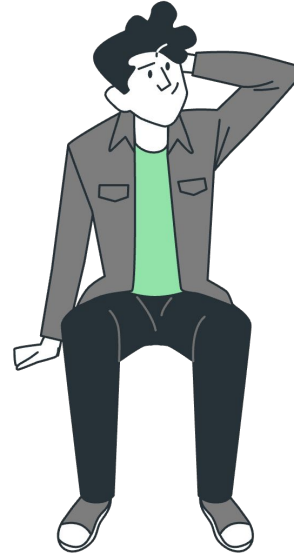
What would be the first thing I would start doing independently again if I could?

If I could then I would...

1. Go to toilet by myself

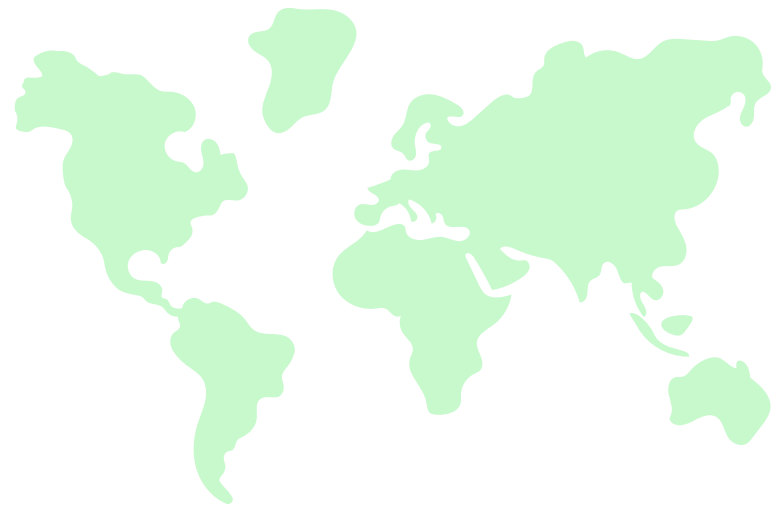


2. Scratch myself when it itches



1,300,000,000 people with significant disabilities globally

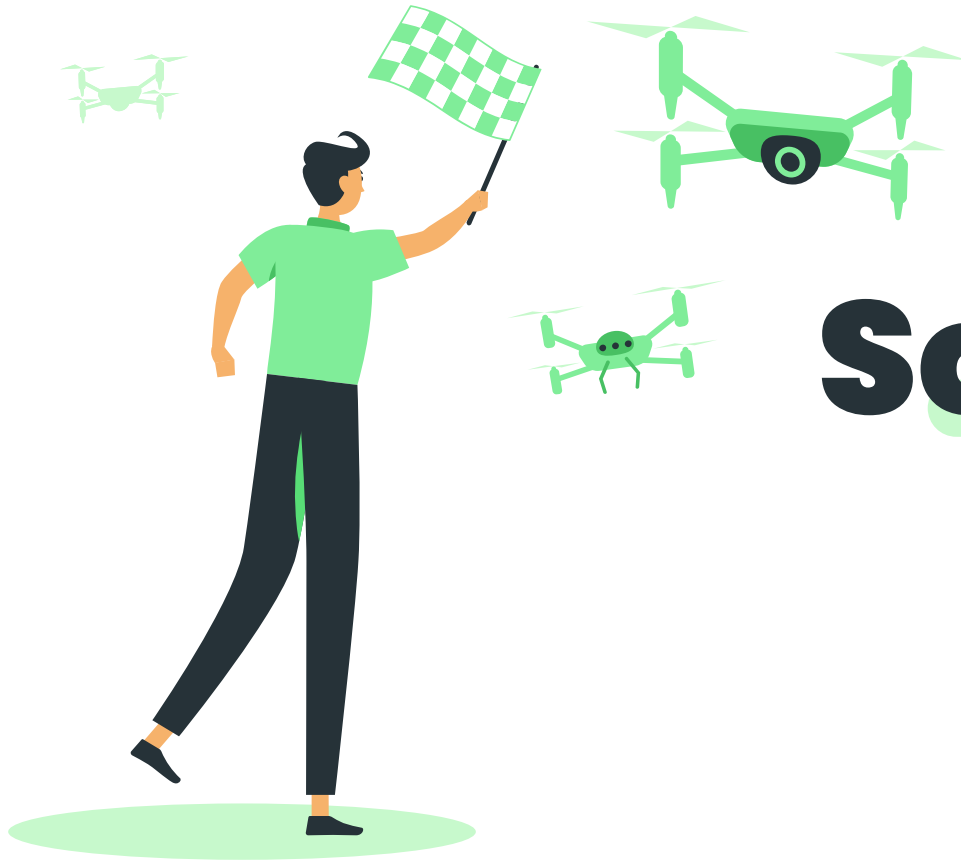
- ❑ 430 million people globally have moderate to profound hearing loss
- ❑ 1 billion people with vision impairment that could have been prevented or is yet to be addressed
- ❑ 80 million people need a wheelchair



Assistive technologies is projected to reach over \$42b by 2028.



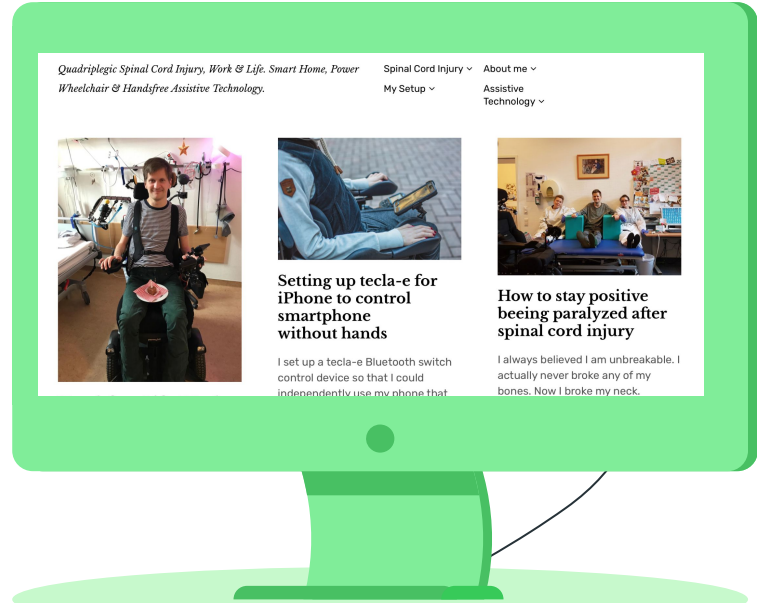
Next Move Strategy Consulting, Size of the disabled and elderly assistive technologies market worldwide between 2021 and 2030.



Solutions

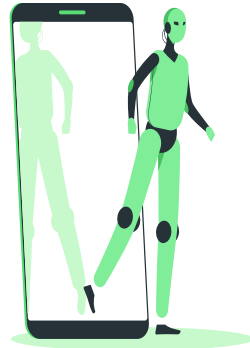
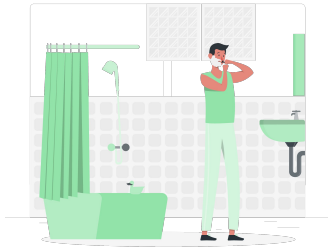
Quad.Works

Tutorials how to use the latest assistive technology for all day & work activities without using your hands or feet.



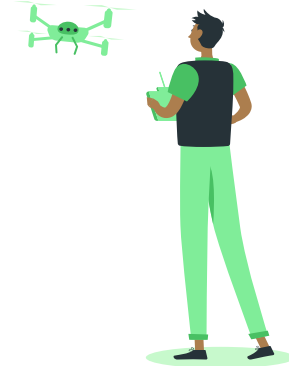
My assistive technology portfolio

Basic needs



Smartphone & Desktop

Smart home



Mobility

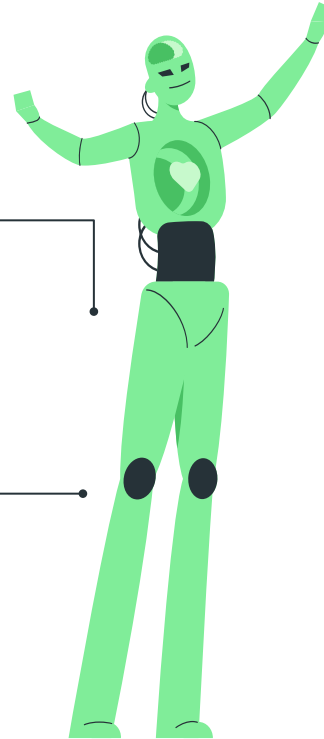
The basic technology gap



**Power
Wheelchair**



**Electric
adjustable bed**



Electric lift

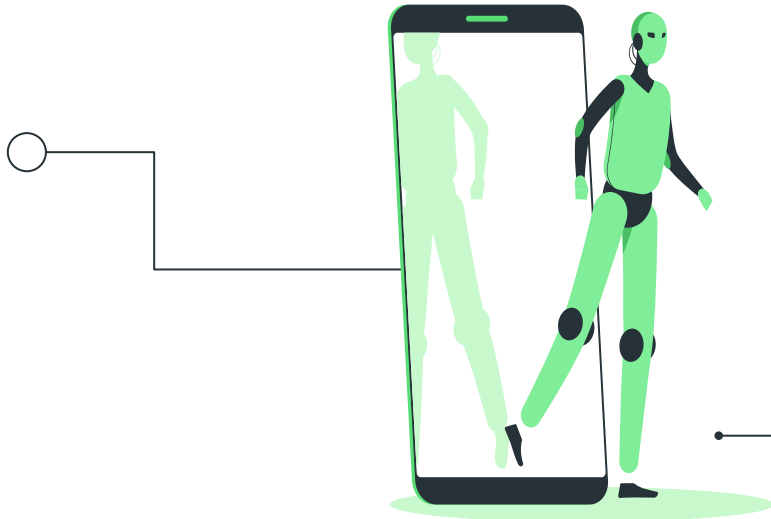


Smartphone hands-free



Voice control

Digital Assistant



Switch control



Hardware for hands-free desktop use

- ❑ Headmouse
- ❑ Table & mobile microphone
- ❑ Headsets



Software for hands-free desktop use

- ❑ Dwell click
- ❑ Virtual keyboard
- ❑ Keyboard text
- ❑ Dictation
- ❑ Voice control
- ❑ The cloud



Digital whiteboards enable accessible worklife

- ☐ Inclusive collaboration
- ☐ Interactive hybrid meetings



Smart home using voice, switches & mobile apps



Voice Assistant

Amazon Echo devices enable multi connectivity



KNX

Open source platform for home automation



Hardware

for lazy people



Apps

for corresponding hardware

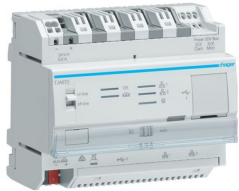
Smart home increases accessibility (for couch potatoes)



Lights & switches



Thermostat



**Doors, curtains,
tables, couch & bed**



Air purifier

My favorite mobile tools

Hydrant



Van with Lift



Bluetooth sunglasses



Bluetooth blood pressure meter



Technology drives accessibility



Gaming



Robotics



Virtual Reality

Artificial Intelligence

**Thank you,
technology.**





Q & A ? !

Jan@Quad.Works / Quad.Works

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