



# Stair Climbing Wheelchair



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Most patients without legs would need their wheelchairs to help them move from one place to another. However, there are people who are unaware that disabled patients are unable to move to certain places such as the desert and grassy areas, even with the assistance of their wheelchairs.

Wheelchairs cannot be used in deserts because the wheels would sink in the sand. Grassy areas have small rocks and tufts of grass that may hinder the movements of a wheelchair. In addition to deserts and grassy areas, staircases are also an obstacle.

The 'Robotic Wheelchair' is another of Zhang Feng's genius inventions that helps wheelchair users climb staircases. This invention was originally for his physically disabled uncle. Besides the "automatic hospital bed", the "robotic wheelchair" joins Zhang Feng's invention list that aims to ease the lives of disabled people while simultaneously reducing their dependency on others.

The idea of the "robotic wheelchair" first came to light when Zhang Feng's uncle visited him in Shen Zhen, China. Because Zhang Feng's house was on the first floor, his uncle had difficulties climbing the staircase. His uncle even tried to make light of the situation by saying he is lucky enough to just climb one floor and not seven or eight floors. Zhang Feng felt sad after listening to that joke and it was at that moment he decided to kick-start his new invention.

Wasting no time, he began production on the first prototype. Zhang Feng then continued to build a total of 5 working prototypes that were subjected to rigorous durability and reliability tests. After labouring for 4-5 years, he finally found success when his final “robotic wheelchair” managed to ascend and descend staircases safely without bringing any harm to its user.

### **Food for Thought:**

- Things that happen in our daily life give us ideas for invention and innovation.
- Invention and innovation always requires a strong determination.
- Failures and tests are necessary for each invention to achieve its outcome.



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