Ayush Gupta, class 12, Delhi Public School Haridwar, Uttarakhand

Ayush has set his eyes on robotics. "I want to make different types of robots to make human life easier. I like everything related to robotics. As a toddler, I used to break open my toys out of curiosity about how the parts operated. My parents were concerned initially but now understand me," says Ayush, who had earlier developed a robot soldier out of waste material to be used in wars to prevent bloodshed.

Ayush's father works with a PSU while his mother is a homemaker. His elder brother is pursuing mechanical engineer and is very supportive of Ayush's innovations.

Arnov Sharma, class 12, Delhi Public School, Haridwar, Uttarakhand

Arnov wants to become a mechanical engineer and an inventor. He likes to make cartoons and paint in his free time. He also writes songs and loves gadgets.

His father owns a workshop of motor repair while his mother is a homemaker. He has a younger brother.

Ayush likes to watch animated movies and his favourite superhero, like his friend Ayush, is Iron Man.

Bionic Body Suit

Ayush Gupta, class 12, Delhi Public School Haridwar, Uttarakhand | Arnov Sharma, class 12, Delhi Public School, Haridwar, Uttarakhand

When Ayush and Arnov used to visit Har-ki-Pauri in Haridwar for Ganga aarti, they would see a lot of physically handicapped beggars, mostly those without arms

Later, while watching a Hollywood movie, Iron Man, the students came up with the idea of developing an Iron Man-like robotic suit, which would help the beggars lead lives like normal people and become independent.

The duo has designed a mechanical body suit that can provide support to a physically challenged person or aid orthopaedic patients. The suit supplements the movement of the upper skeleton system.

The students used recycled materials, motor parts and other scrap to make the prototype.

"In our innovation, the upper and lower arm is connected with a lever, which is connected to a pulley that rotates the arm. It is a very simple mechanism but hopefully, will be useful to people," says Arnov, who developed the cost-effective model with his classmate Ayush during their vacation.