

The Wheelchair Project

Tyagi, Arav (School: Franklin High School)

Marzoratti, Antonio (School: Franklin High School)

PAWE converts manually controlled wheelchairs into electrically powered wheelchairs. PAWE attaches onto most standard manual wheelchairs by sliding onto rods. The rods are attached to the wheelchair using easily installable quick gripping latches. These quick grip latches hold the PAWE in place through friction. The wheelchair's movement wheels are rotated by compliant wheels powered by motors. The entire attachment controls the wheelchair through an interchangeable joystick. Different joysticks can be made for different disabilities and needs. These new forms of wheelchair control can be plugged in instead of the standard joystick via a CAT 5E cable. The CAT 5E cable is removable on both sides, so any ethernet cable or CAT 5E cable can be used to replace the connection or modify the length of cable needed. The PAWE is lightweight and easily removable, making it extremely portable. The attachment is aimed to suit the needs of people with a wide range of disabilities through a reasonable cost, great portability, and without the downsides of a full-fledged electric wheelchair.

Awards Won:

