



#### GYROSCOPE VS. ENCODER TECHNOLOGY

Unlike other wheelchair companies, Permobil utilizes gyroscopes for its steering technology, rather than encoders. With gyroscopes, the ESP system is constantly monitoring the actual direction of the wheelchair, comparing this to the driver's requested direction, and automatically making corrections to stay on track. ESP uses Memorized Directional Intelligence™ (MDI™) that does not rely on drive wheel speed as encoder based systems do, which means a wheelchair with ESP will not lose its direction due to a loss of traction. For example, when a wheelchair traverses bumps or slippery surfaces, the ESP system will remember the original direction and automatically keep the chair on course. This is not possible with encoder systems that require constant traction to stay on course.



*The Power of Mobility*

[www.permobil.com](http://www.permobil.com)

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BUT NOT WITH ESP...





Permobil has fine-tuned its ESP (Enhanced Steering Performance) system for over 10 years, ensuring that all drivers benefit by safely and accurately steering their power wheelchairs over any type of terrain whether indoors or out with minimal effort.

Now standard on the C400 and C500, ESP enables drivers to easily navigate sloped or angled areas, rough surfaces, carpeted floors and more without worrying about their wheelchairs gently drifting or even abruptly changing direction. Drivers can also safely travel at high speeds without the fear of spinning out of control. ESP prevents all of the unwanted driving responses and steering corrections that can be challenging and tiresome, all the while keeping drivers secure and on track.



#### BENEFITS TO DRIVERS

- ESP is now the standard of practice for non-proportional and switch drivers.
- ESP virtually eliminates the need for constant manual correction, making it imperative for non-proportional drivers, while significantly helping proportional drivers with minimal hand strength and endurance.
- For users with high-speed chairs—in excess of 5 MPH—ESP gives them the stability to avoid spin-outs.



#### TERRAINS & SURFACES

- ESP excels when it comes to angled and sloped areas, ensuring the wheelchair maintains the direction of the driver's command with virtually no correction.
- Rough and soft surfaces are no longer a problem with ESP.
- Surface variations typical on hard floors and carpets force a driver to make constant corrections to stay on track, particularly when navigating passages. ESP eliminates these barriers.

#### ESP AND R-NET

When ESP is installed on a wheelchair with R-Net drive electronics, the speed settings can easily be adjusted using On-Board Programming without having to remove the shroud or connect to a computer.

#### ESP AVAILABILITY

- ESP is now standard on C400 and C500.
- ESP is available as an option on C300 and K300 with R-Net drive electronics.

