R-net System

- **Modular powered wheelchair control system**
- **Expandable up to 15 Modules**
- **Multiple Input & Output Devices**
- **Connect & Go / Future Proof**
- **Joystick Module with 3.5" VGA display**
- **Advanced diagnostics**
- **Friendly programming**
- **Third-party development kit**
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R-net is a multi-module electronic system designed specifically to control the speed, direction and many other functions on medium to high specification powered wheelchairs. Although R-net is highly flexible and expandable with connection of up to 15 modules being possible, it is extremely simple to install and use. A key feature is the ability of the system to provide simple, 2 module solutions at a competitive price, while also being easily expandable to address much more complex Rehab type requirements.

The basis of R-net's unique combination of flexibility and simplicity is the R-net communications protocol. This is a custom software communications protocol developed by PG Drives Technology specifically for powered wheelchair applications. The underlying hardware link utilizes the well established and proven CAN bus, the automotive industry standard.

Expansion of the R-net System

The R-net product range has been expanded over the years to encompass all the flexibility required from the market leader in wheelchair control systems. The basic building blocks designed in from the very beginning have enabled R-net to evolve to meet the changing market requirements. The R-net includes multiple Joystick Module options, Specialty Controls, the ability to control computers and Smart devices via the Bluetooth® Mouse Modules and Infra- Red control as standard on the R-net Omni.

The R-net Complex Seating Module (CxSM) offers the OEM the opportunity to design custom seating applications. PGDT provides the CxSM hardware and the core software functionality. The wheelchair OEM can then use the development tools recommended by PGDT to develop bespoke seating solutions.

By providing developer kits, PGDT is opening up the possibility of broadening R-net's capabilities much more swiftly than PGDT could do by itself. We allow OEMs to create competitive differentiation of their vehicles by commissioning custom modules from third-party designers that are compatible with the safe foundation of an R-net drive system.

Connect & Go / Future Proof

The R-net protocol takes into account many issues that affect wheelchair dealers and therapists, such as: ease of installation, servicing, programming and up-grading wheelchairs to account for progressive conditions. Throughout the whole development program of R-net, the philosophy is one of "Connect & Go", i.e. modules can just be connected and will function without the need for complex programming. No other currently available powered wheelchair system is as flexible, intelligent or as easy to set-up as R-net. In a similar vein, R-net was designed to be able to accommodate further expansion. The protocol allows new modules to be added to existing systems and to automatically teach the system about their capabilities and programming requirements, without the user having to do any programming. R-net is therefore "Future-proof" – easy to upgrade as new modules become available.

R-net Product Family

JSM-LED	PM90	EL Seating Module
Color JSM	PM 120	2L 4L 6L 8 Seating / Lighting Modules
Omni	Encoder Module	Complex Seating Module
Attendant Module	Stability / Tilt Module	Output Module
Input Module	Gyro Module	Bluetooth Modules
		Omni IR

The World's Most Advanced Joystick Module

- **Stylish and ergonomic design**
- **Large, high resolution 3.5" VGA color display**
- **Paddle switches for easy access to user controls**
- **Enhanced programing and customization options**
- **Built-in light sensor to automatically adjust screen brightness**
- **Speaker for enhanced horn volume**
- **Metal case for improved robustness**
- **Connect-and-Go**

PRODUCT CODES

POWER MODULES

R-NET PM60	60A max. current
R-NET PM80	80A max. current
R-NET PM90	90A max. current
R-NET PM120	120A max. current

JOYSTICK MODULES

R-net JSM-LED	Joystick Module
R-net JSM-L-LED	Joystick Module with lighting control
R-net CJSM2-sw	Joystick Module with jack sockets
R-net CJSM2-L-sw	Joystick Module with lighting control and jack sockets
R-net Attendant	Joystick Module for Dual Attendant

SEATING/LIGHTING MODULES

ISM-L	Lighting Module
SM	Seating Module used with PM 90 only
ISM-XL	Seating/lighting Module with X seat channels (X= 2, 4, 6 or 8)
CxSM	Customizable Complex Seating Module - 8 channels

EXPANSION MODULES

Omni	Color LCD Universal Specialty Input Device
IOM	Input and Output Module
Bluetooth® Modules	Bluetooth® Mouse Control for Windows, Android or iDevices
Encoder Module	Motor Encoder Interface
ASM	Accelerometer Stability Module
Gyro Module	Gyro Stability Module
Development Module	Development platform for R-net compatible third-party modules

CURTISS-WRIGHT