SMART POOL CLEANING

Por: **Maytronics Technical Department**

The challenge facing the swimming pool sector is its adaption to new technologies. The trend towards solutions related to the control and automation of remote pool maintenance is increasingly gaining more followers, which means the industry will have to respond accordingly.

Connectivity changes the way both professionals and the end customers treat a pool. It makes both real-time information about equipment performance (treatment, lighting, heating, cleaning, spa accessories, jets and waterfalls, etc.) and remote pool control possible. Overall, this evolution allows for enhanced monitoring of all pool-related data (consumption, efficiency, cost, etc.), thus opening up a world of possibilities through tools as simple as apps.

There are two clear trends in the field of pool connectivity, also called the Internet of Pools (based on the Internet of Things). On the one hand there is full connectivity, which makes the combined operation of all a pool's equipment (pumps, electrolysis, pool cleaners, etc.) possible. Partial connectivity, on the other hand, is an individual piece of equipment with its own connectivity via an app for the standalone control of that particular piece of equipment.

Connectivity in automatic pool cleaners
The range of pool equipment that comes with its own connectivity includes automatic pool cleaners. Currently, there are different types of devices on the market based on the type of connectivity they provide.

Firstly, robots with **serial connectivity** connect to the power supply using data cables and connectors. Since it is program-

med via the power supply, this type of cleaner cannot be remotely controlled. A supply that only allows the robot to be switched on and off and to perform simple tasks like setting the cleaning settings or weekly programming.

Secondly, cleaners with **radio frequency connectivity** can be programmed and managed via a remote control that uses radio frequency to connect to the power supply. The robot can be programmed and managed across long distances using this technology, although the information transmission speed and signal quality are limited.

Thirdly, there are cleaners with *Bluetooth connectivity*, a technology that allows wireless connection and data transfer from the power supply to the robot via radio frequency (RF) remote control or a mobile app. The Bluetooth connection range is 10 metres up to a maximum of 100 metres with repeaters. The user can contact the equipment manufacturer through the mobile app, as well as consult and download relevant information like instruction manuals.

Finally, there are the pool cleaning robots with *Wi-Fi connectivity,* which provides an Internet connection and delivers large amounts of data to the user. The equipment can also be controlled and programmed anytime, anywhere, via Bluetooth remote control (BL) or using an app on any mobile device. More data

IoT power supply and Bluetooth remote control.

Dolphin by Maytronics: Always Connected

One of the companies that focuses on technological innovation and incorporates the latest advances in connectivity into its products is Maytronics and its Dolphin pool cleaners. Under the **Always Connected** concept, Maytronics incorporates IoT technology into Dolphin robots through real-time connectivity, making it possible for pool owners to control their robot from anywhere in the world through the new **MyDolphin™ Plus** mobile app.

Always Connected technology combines a suite of features and services hosted on a cloud-based IoT platform. This proprietary platform allows Maytronics to ensure that stored information and data are safeguarded.

The **MyDolphin™ Plus** app uses pool cleaner connectivity for remote robot programming and operation; users can select modes and cycles, receive notifications, and set the weekly timer anytime, anywhere.

Maytronics Dolphin cleaners with **Always Connected** technology come with a new power pack designed to provide end users with smart control of their device, maximum interactivity and ease of use through the new **MyDolphin™ Plus** app. The new power pack consists of a simple, easy-to-operate interface with an on/off button and

Smart pool cleaner with Always Connected technology.

an LED indicator that displays device status at a glance. Remote software updates with the latest robot features and capabilities are possible along with proactive service and maintenance tips.

Always Connected cloud services are now available for Maytronics Dolphin M-Line and S-Line intelligent robots and for the most exclusive custom models.

CLASSIFICATION OF MAYTRONICS DOLPHIN CLEANERS ACCORDING TO CONNECTIVITY TYPE					
Cleaner		**Connectivity Type**			
		Serial	Radio frequency	Bluetooth	Wi-Fi
Operation	On/Off	✓	✓	✓	✓
	Navigation and control		✓	✓	✓
Remote control	Remote control		✓	✓	✓
	App for smartphone or tablet		✓	✓	✓
Programming	Cleaning programs	✓	✓	✓	✓
	Cycle times	✓	✓	✓	✓
	Weekly timer	✓	✓	✓	✓
	Delay	✓	✓	✓	✓
Features	Filter full indicator	✓		✓	✓
	Connection of more than one device			✓	✓
	Communication with the manufacturer			✓	✓
	Download and consult information			✓	✓
	Pick-me-up system				✓
	Unlimited operating distance				✓
	Notifications and alerts				✓
	Remote software update				✓

Connectivity in pool cleaners helps to streamline pool maintenance. The automation of tasks and remote management translates into time savings, greater convenience, and user independence

can be transmitted using the Bluetooth remote control with less interference than with the radio frequency remote control signal.

Internet access also allows for enhanced cleaner-user interaction. Thus, not only can robots with Wi-Fi connectivity contact the manufacturer and check information, but they can also send the user notifications, alerts, and recommendations in real time. The user is always informed of the robot's status and, consequently, of the pool's condition.

Another significant benefit of pool cleaner Wi-Fi connectivity is the ability to perform remote software updates, which significantly reduce operational issues and technical support needs. For example, the robot alerts the user when it is malfunctioning or needs a filter cleaning.

In short, connectivity in pool cleaners helps to streamline pool maintenance. The automation of tasks and remote management translates into time savings, greater convenience, and user independence.

Furthermore, using a connected cleaner means choosing efficient consumption. Optimising equipment performance reduces a pool's energy and water consumption.

Therefore, the more innovative the connectivity technology used, the greater the benefits for both the pool professionals and the user.

Maytronics
www.maytronics.com

MyDolphin™ Plus app.