High Tech Trends

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are you ready for aquarium upgrades?

Delicate reef invertebrates and corals require sophisticated, specialized environments.

Advances in technology are often assimilated and quickly incorporated into the aquarium hobby. One may argue that the increasing popularity of the aquarium hobby is due to these technological advancements. Technology is allowing aquarists to take the hobby into a new and interesting frontier that was once impossible without the aid of these devices. Thanks to novel application of technology, aquarium equipment is becoming smaller, more efficient, and "smarter" to make aquarium keeping easier than ever.

Compact equipment

Perhaps the best example of this trend is the popular "nano" aquarium. These compact aquariums are sophisticated mini systems designed to house delicate reef invertebrates and corals. Life-supporting equipment, including filtration and lighting, are often integrated into the aquarium or hood to provide reliable performance without compromising the aesthetic quality of the aquarium.

Because a small volume of water is more susceptible to rapid fluctuations, the success of nano aquariums relies on maintaining stable water parameters. Auxiliary aquarium devices that help establish ideal water parameters have also decreased in size to work in conjunction with these smaller aquariums. For example, the The popularity of these small aquariums created a demand for smaller, quality aquarium equipment. You can expect more "pint-size" aquarium gear in the near future.

While their use is not limited only for nano aquariums, sophisticated water quality monitoring devices have also decreased in size. To transition from commercial/industrial use to practical, home aquarium use, water-testing instruments have come down in price and size. These laboratory-grade monitors boast hand-held convenience and extreme ease of use.

Efficient

Q A

What are LEDs?

L.E.D. is an acronym for "Light Emitting Diode." Due to their low energy use and the relative bright light they produce, LEDs are used more frequently in aquarium light fixtures as supplementary, as well as independent, light sources.

The aquarium hobby has changed rapidly just in the last few years. As more technologically advanced equipment is incorporated into the hobby, we can expect new and wonderful ways of enjoying aquariums in our homes.

RELATED INFORMATION

- Simplify Aquarium Testing with Hanna Testers
- How to Upgrade Your Aquarium System with Electronic Testing, Dispensing, & Monitoring Devices

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Monitoring Devices

Advancements in Aquarium Filtration

design

Along with size reduction, another prominent characteristic demonstrated by new aquarium equipment is increased efficiency. Newly designed aquarium equipment uses less energy and offers maintenance-free performance for the hobbyist. Much electrical equipment notorious for energy use now incorporate energy-efficient technology. For example, more and more light fixtures integrate low-wattage LEDs, high output light fixtures rely on energy-efficient electronic ballasts, and aquarium chillers feature state-of-the-art titanium heat exchange coils. Innovative, new water circulation devices, such as the amazing EcoTech Marine VorTech QuietDrive Propeller Pumps use a bracket-free design with magnetic coupling that places the motor outside the aquarium.

Intelligent revolution

The increased use of electronic components within aquarium equipment means a new generation of programmable, smart devices. From electronic submersible heaters that maintain accurate water temperature by sampling aquarium water temperature to programmable digital feeders to a canister filter capable of self-diagnosis, aquarium products are more reliable and require less monitoring. This gives hobbyists more time to enjoy their aquarium instead of spending it on constant maintenance.

The ultimate in "smart" devices are aquarium control systems. Just as their names imply, these electronic controllers allow the hobbyist to control other high tech devices to manage pH, conductivity, dissolved oxygen, ORP parameters, and lighting all at the same time. High-end models even connect to your local network, so you can view and modify current controller programs from any internet enabled computer.

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