

AquaSmart

Smart Aquarium Device

AquaSmart project is a part of the IOT course project.

Our goal with this product is to make our customer aquarium maintenance routine easier, in order to do that, we chose to develop our smart device, which can monitor and analyze the aquarium data and water details in real time.

Description:

Aquarium business has evolved and become much more appealing to every person, family, and business owner.

The main concern was how to maintain and keep the aquarium as safe and clean as possible, this is where our smart device 'AquaSmart' is coming play.

Main Features:

- **Real Time Analytics:** The AquaSmart device can monitor and collect data in real time.
- **Emergency Notifications:** The device is able to calculate and identify suspicious data.
- **Performing Operations:** The device is capable of operating events such as Temperature adjustment, Execute Pump Cleaning
 - Can be done manually or automatically.
 - Some features might require additional smart devices (such as pump and etc.)
- **Easy to use:** Our device can be controlled easily through Mobile application or Laptop (or PC).
- **Easy to install and to Configure:** Our biggest concern was to make a device that can be installed and configured easily without the use of external person (which could cost more money to the customer).

Hardware:

- **Built-in Battery:** the device is needed to be plugged to the plug.
- **Built-in Wi-Fi:** the device has built in wi-fi in order to connect to the application or computer wirelessly
- **Smart Tube:** the device has a smart tube which connects directly to the device and needs to be inside the water (at least 15cm deep), in order to receive water data.
- **Device 'Brain':** Three different Chips and a unique processor.