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McOrts Update README.md edcff56 · 5 years ago 18 Commits

images	v1	5 years ago
.gitignore	Initial commit	5 years ago
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M5StickC.fzpz	v1	5 years ago
M5StickC_PH_sensor.fzz	v1	5 years ago
M5StickC_PH_sensor.ino	MQTT messaging	5 years ago
PH_meter.fzpz	v1	5 years ago
README.md	Update README.md	5 years ago
settings.h	MQTT messaging	5 years ago

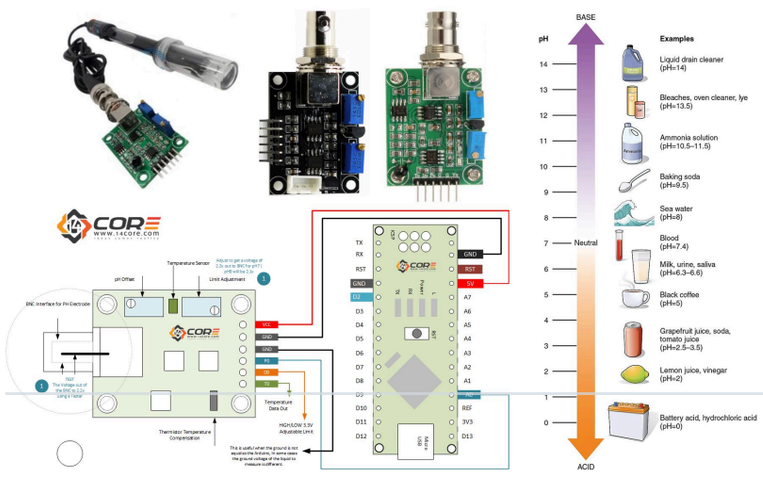
README MIT license

pH sensor for water based solution with ph-4502c and ESP32 microprocessor

The problem

My aquarium always has water turbidity problems.

Deployed idea

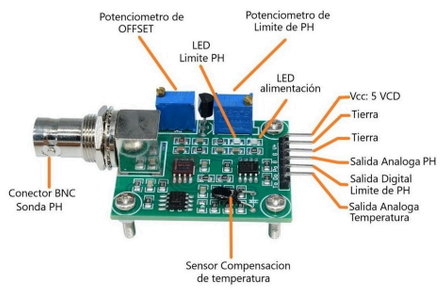


The approach is easy. We have a sensor that send an analogical signal that we have to read. Most of the microcontrollers that exist have at least, one analogical digital conversion input AD. I have chosen the compact M5StickC model based on ESP32 that incorporates a perfect LCD screen for this use case.

Things used in this project

Hardware components

- M5StickC ESP32 PICO Mini IoT Development Board Finger Computer with Color LCD Built in Battery MPU... × 1
- PH-4502C Liquid PH Value Detection detect Sensor Module Monitoring Control Board For Arduino BNC Electrode Probe × 1
- Jumper Wires / DuPont Wires
- Voltage Tester



Software apps and online services

- Arduino IDE
- Eclipse Mosquitto open source MQTT broker
- Node-RED

About

pH (Power of Hydrogen) sensor for water based solution with ph-4502c and ESP32 microprocessor

#iot #arduino #esp32-arduino #m5stickc

Readme
MIT license
Activity
15 stars
1 watching
4 forks
Report repository

Releases

No releases published

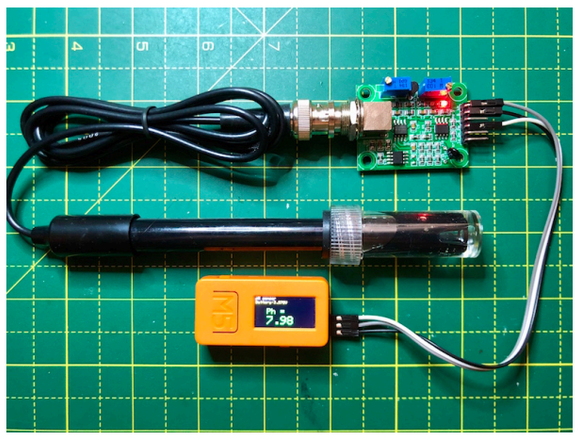
Packages

No packages published

Languages

C++ 91.0% C 9.0%

How does it Work?

The device is intended to be used as a portable tool. When the M5StickC is turned on, its display shows a continuous reading. If we press the M5 button, the last measurement will be sent in an MQTT package to the server that we have configured in the config.h file. 

A Node-red application collects the package and displays the graph in an component of the dashboard that I have developed for the control of the smart aquarium filter.

Development

I have used prototyping material. What is working is proof of concept for the use case of the system control of my aquarium of turtles