

# AquaPad and Aquarius Controller

Tester

Developed by

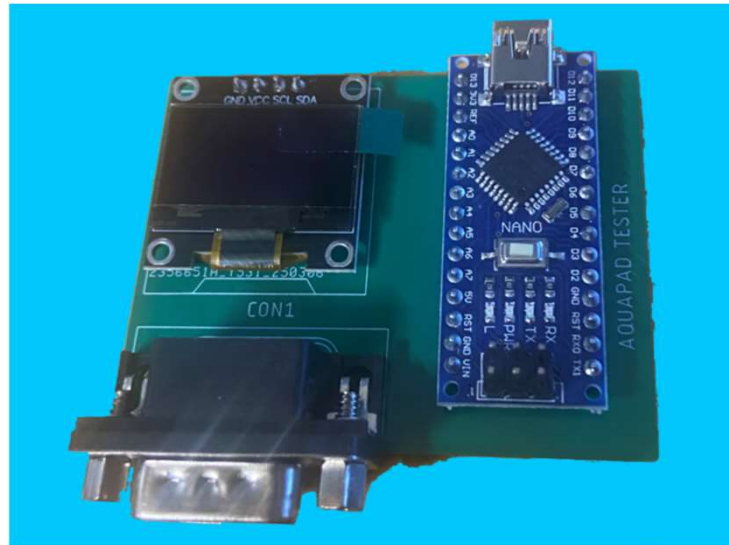
[www.youmakerobots.com](http://www.youmakerobots.com)

# Components needed

- [Male 9pin D-Sub Socket](#) – Don't get one with hollow pins
- Arduino Nano v3
- 4 pin OLED Screen 128x64 GND on pin 1 (not VCC on pin1)
- USB Data cable for Arduino

# PCB

- Download the Gerber.zip from Github
- Upload it to JLCPCB or PCBway or your choice of PCB service
- Order PCBs
- When PCBs arrive the 3 components in the orientation shown in this Photo:



# Software

- Download AVRdudess
- Download the Firmware HEX file from github. Make sure you pick the correct Bootloader for you Arduino Nano
- Open AVRdudess
- In the Flash file field find and select the firmware you downloaded
- The next page will show you the settings of AVRdudess.
- The click on Program to upload the Firmware to the Arduino

AVRDUDESS 2.18 (avrdude version 8.0)

Programmer (-c)  
arduino ... (Arduino bootloader using STK500 v1 protocol)  
Port (-P) COM3 Baud rate (-b) Bit clock (-B)

MCU (-p)  
ATmega328P  
Flash: 32 KB 1E950F  
EEPROM: 1 KB Detect

Flash  
C:\Users\vicky\OneDrive\aquapad\tester\AquaPadTester\_1\_3.new-bootloader.h  
Write Read Verify Go Format Auto (writing only)

EEPROM  
Write Read Verify Go Format Auto (writing only)

Options  
☒ Force (-F) ☐ Erase flash and EEPROM (-e)  
☐ Disable verify (-V) ☐ Do not write (-n)  
☐ Disable flash erase (-D) Verbosity 0

Presets  
Default Manager

Fuses & lock bits  
L 0xFF Read Write  
H 0xD2 ☐ Set fuses  
E 0xFD High fuse [ings](#)  
LB ☐ Read Write  
☐ Set lock  
Bit selector

Additional command line args

Program! Stop Options ?

-c arduino -p m328p -P COM3 -F -U flash:w:"C:\Users\ricky\OneDrive\aquapad\tester\AquaPadTester\_1\_3.new-bootloader.h"

```
Detected 1e950f = ATmega328P
~ ~ ~ ~ ~
>>>: avrdude.exe -c arduino -p m328p -P COM3 -F -U flash:w:"C:\Users\ricky\OneDrive\aquapad\tester\AquaPadTester_1_3.new-bootloader.h"
Reading 8412 bytes for flash from input file AquaPadTester_1_3.new-bootloader.hex
Writing 8412 bytes to flash
Writing | ##### | 100% 1.17s
Reading | ##### | 100% 1.00s
8412 bytes of flash verified

Avrdude done. Thank you.
```

Ready High fuse

# How to use

- Power on the Tester. First a splash screen will display for a few seconds. Then it will wait saying “AquaPad Tester”
- Plugin the AquaPad and turn on or plugin in the original Aquarius controller.
- Press each button K1-K6
- Move the Thumbstick or dial to show P1-P16