NHD-1.69-AU-SHIELD

Color OLED Arduino Shield User Guide

NHD-	Newhaven Display
1.69-	1.69" Diagonal Size
AU-	Arduino Uno
SHIELD-	Shield

Document Revision History

Revision	Date	Description	Changed by
0	12/04/2015	Initial Release	PB

# Table of Contents

Overview

Engineered in Elgin, IL USA, the Color OLED Arduino Shields are available in three sizes: 1.27", 1.5" and 1.69" diagonal. Each Color OLED Arduino Shield comes with a serial interface color OLED display module that has a single row pinout designed for easy breadboarding, can support video, and has all the great display features of Newhaven Display's Full Color OLEDs.

The open source hardware and software design of the Color OLED Arduino Shields saves engineers time and money. Newhaven Display's engineers designed them to be flexible development tools that can be as simple or complex as needed by the user. These shields are not limited to just the Arduino brand boards, with their single row pinout, they can easily be used with any existing development board. These shields are 3.3V-5V ready in order to support a broader range of end products.

Since the Arduino Development boards are powerful tools, a micro SD slot comes as a built-in feature allowing additional storage space for more complex code. This eliminates any memory constraints of the Arduino board. For interchangeable development options, the Color OLED modules share the same pinout between all three sizes. With all of these unique features and more, these modules are a stable component for any display project since they can grow with evolving products.
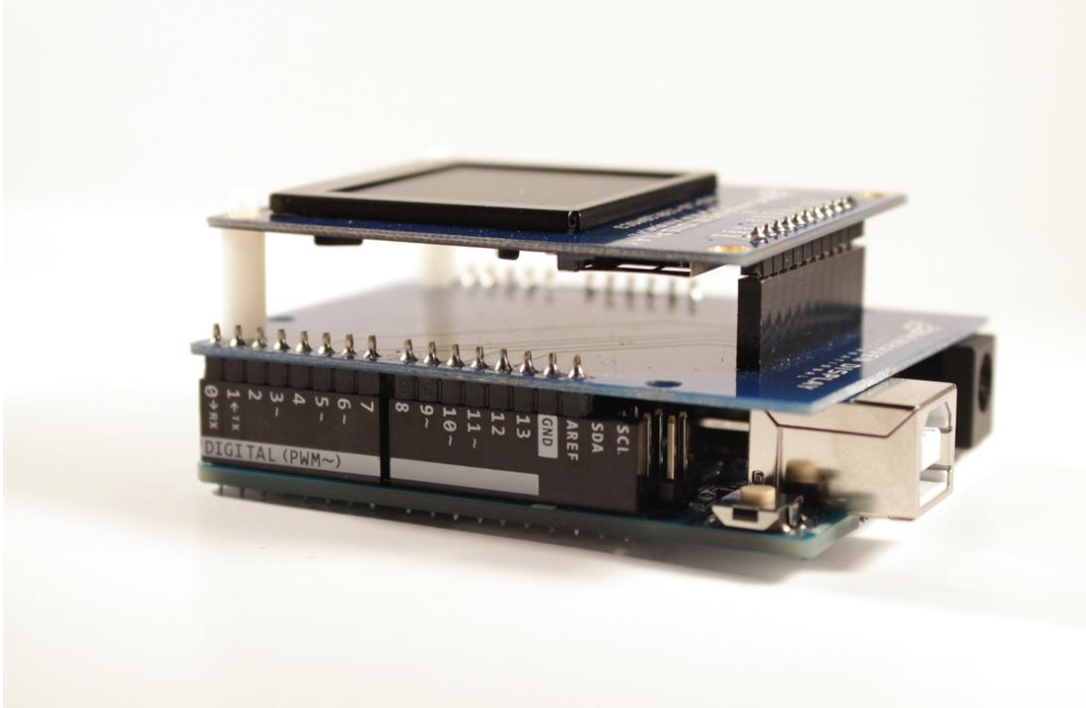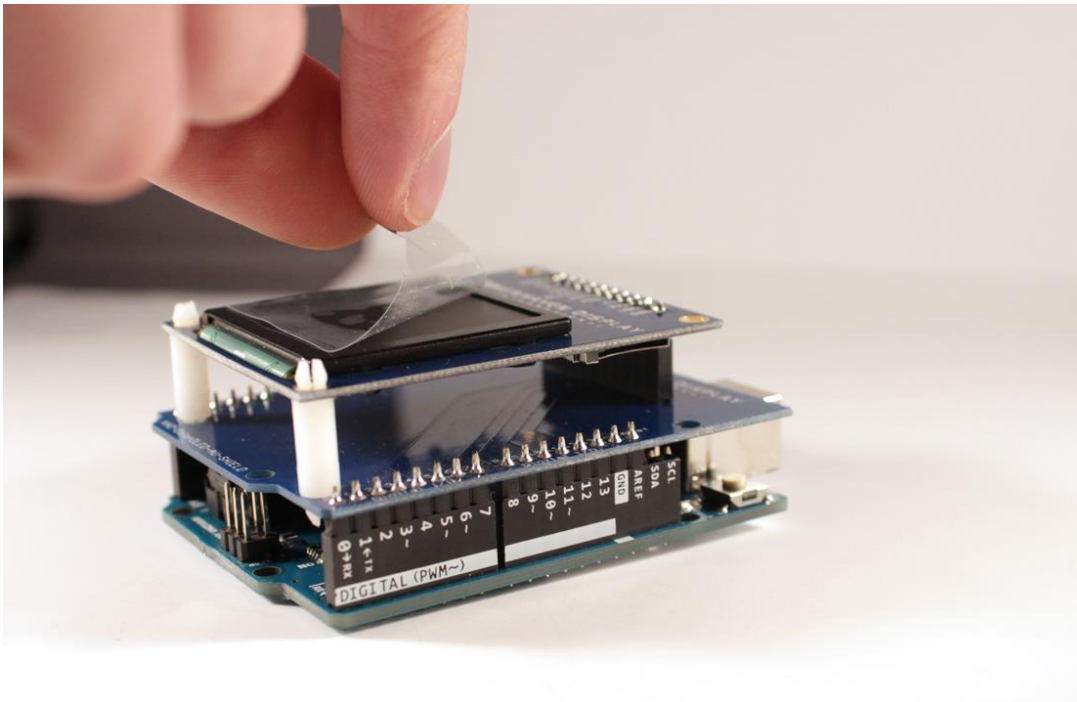
Product Features
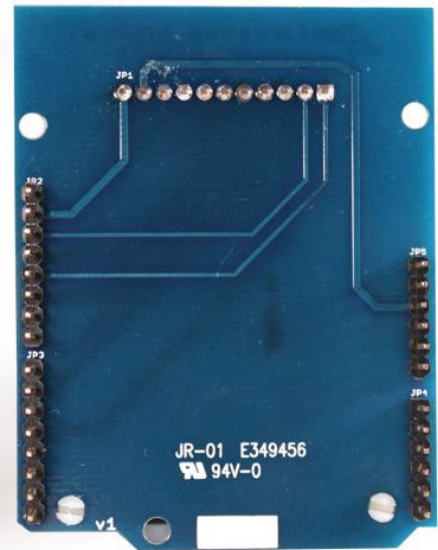
- **160 x 128 pixel resolution**
- **Built-in SEPS525 controller**
- **SPI MPU interface**
- **RoHS compliant**
- **microSD card reader**
- **Built-in logic level shifting for 3.3V ~ 5V operation**

Instructions

Attach the Color OLED Shield onto your Arduino Uno as shown below.

Slowly remove the protective film by pulling up on the Green tab.

Installing the Arduino Software and Hello World Test

Lastly, it is time to run the Hello World test software on the Arduino Uno. You will need to download the library first and install it.
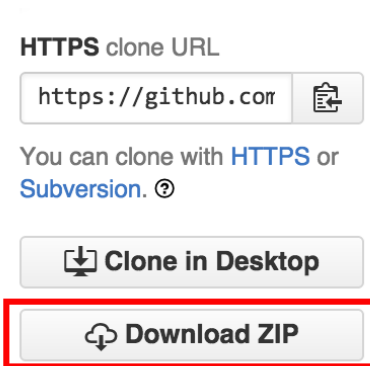
Visit Newhaven Display's GitHub page and download our example Arduino Code:

https://github.com/NewhavenDisplay/NHD-1.69-160128ASC3_Example

To download, click the "Download ZIP" button in the top right corner, rename the uncompressed folder "NHD-1.69-160128ASC3".


Place the NHD-1.69-160128ASC3 library folder in your Arduino's libraries folder. For Windows users, it will be located in "My Documents\Arduino\libraries". For Mac users, it will be located in "Documents/Arduino/libraries".

Note: You may need to create the libraries subfolder if it is your first library.
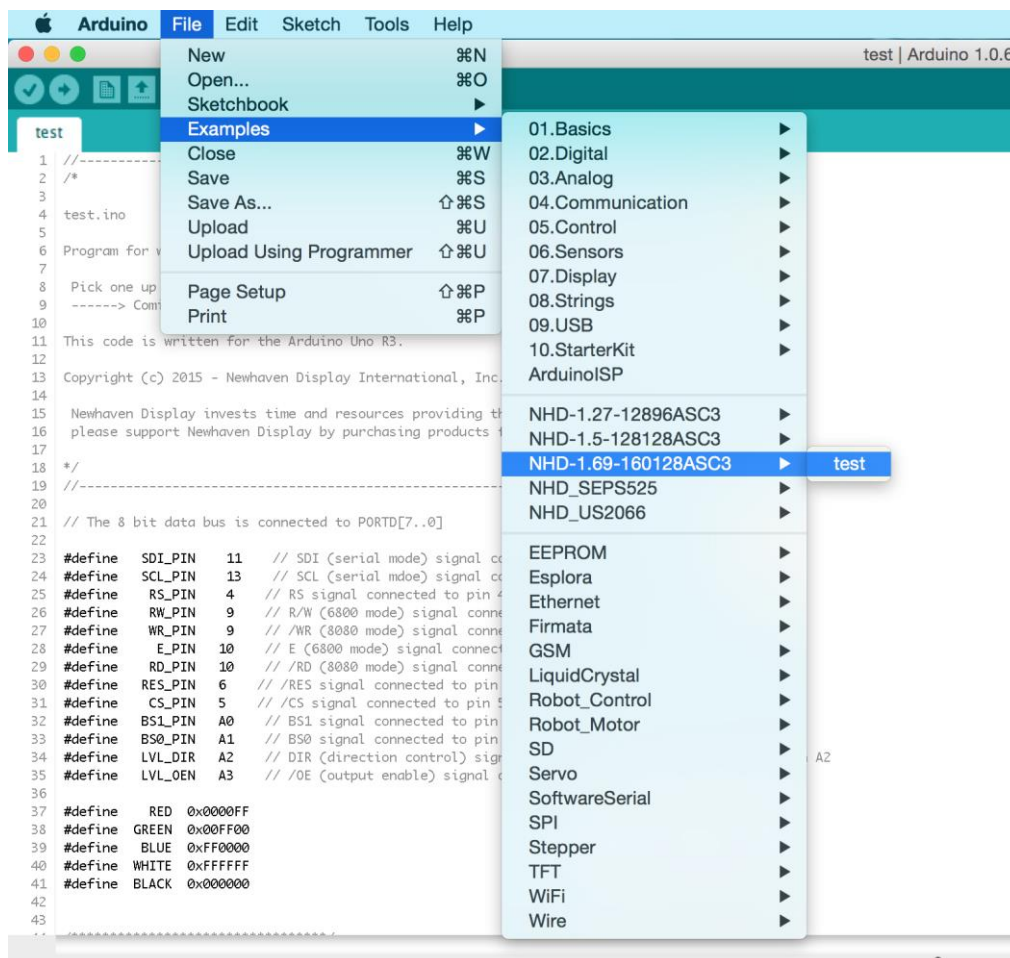
After you restart the IDE, you should be able to select **File →Examples → NHD-1.69-160128ASC3 → test** – this is the example sketch that just tests the OLED display.

Upload the sketch and you should see the following:
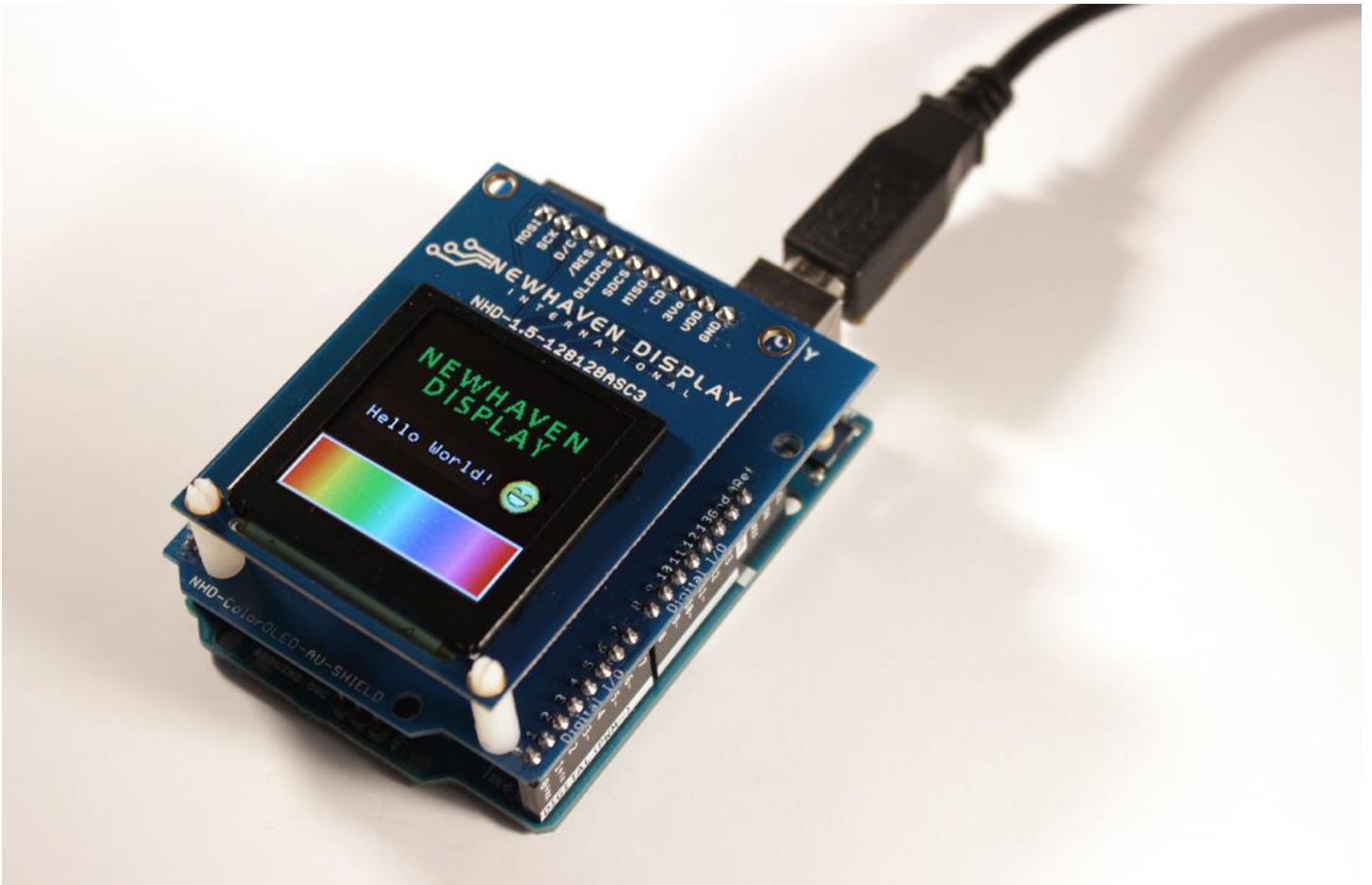
That's it! Enjoy your new display!

Download Links

Library Download:

SEPS525 Library
https://github.com/NewhavenDisplay/NHD-1.69-160128ASC3_Example

Datasheets:

1.69" Color OLED Arduino Shield Datasheet
http://www.newhavendisplay.com/specs/NHD-1.69-AU-SHIELD.pdf

1.69" OLED Display Module Datasheet
http://www.newhavendisplay.com/specs/NHD-1.69-160128ASC3.pdf

SEPS525 Display Controller Datasheet
http://www.newhavendisplay.com/app_notes/SEPS525.pdf

Precautions for using OLEDs/LCDs/LCMs:

See Precautions at **http://www.newhavendisplay.com/specs/precautions.pdf**