



images are CC BY 2.0

SHARE

3D Download: STL, IGES, STEP, Solidworks

SparkFun MicroView - OLED Arduino Module

DEV-12923 ROHS

43

DESCRIPTION FEATURES DOCUMENTS

The MicroView is the first chip-sized Arduino compatible module that lets you see what your Arduino is thinking using a built-in OLED display. With the on-board 64x48 pixel OLED, you can use the MicroView to display sensor data, emails, pin status, and more. It also fits nicely into a breadboard to make prototyping easy. The MicroView also has a full-featured Arduino library to make programming the module easy.

In the heart of MicroView there is ATMEL's ATmega328P, 5V & 3.3V LDO and a 64x48 pixel OLED display, together with other passive components that allow the MicroView to operate without any external components other than a power supply. Additionally, the MicroView is 100% code compatible with Arduino Uno (ATmega328P version), meaning the code that runs on an Arduino Uno will also be able to run on the MicroView if the IO pins used in the code are externally exposed on the MicroView.

Note: The MicroView programmer is sold separately. Check the recommended products below. Also, unlike the Kickstarter campaign, this does not come with the breadboard and USB cable. You only get the bare module.

GET STARTED WITH THE SPARKFUN MICROVIEW GUIDE

Tags

ARDUINO DEVELOPMENT LCD MICROVIEW OLED

SparkFun MicroView - OLED Arduino Module Product Help and Resources

TUTORIALS VIDEOS SUPPORT TIPS hackster.io



MicroView Digital Compass

OCTOBER 24, 2016

Build a portable digital compass using the SparkFun MicroView and the MAG3110 Magnetometer Breakout.



SparkFun Inventor's Kit for MicroView

FEBRUARY 27, 2015

The SparkFun Inventor's Kit for MicroView follows our tried and true inventor's kit model, bringing you 11 simple yet fun experiments to introduce you to the SparkFun MicroView.



MicroView Hookup Guide

DECEMBER 15, 2016

A quick tutorial to get you up and running with your MicroView Development Board.

Downloaded from Arrow.com.

Customer Reviews

4.3 out of 5

Based on 43 ratings:

5 star	22
4 star	15
3 star	4
2 star	1
1 star	1

Currently viewing all customer reviews.

3 of **3** found this helpful:

MicroView ReView

about 3 years ago by 125 Signal ✔ verified purchaser

I'm pleased as punch with both of them..I loved the first one so much, I bought another….Would like to start a collection. I'm relatively new to electronics and mcu, and I must say that definitely as Arduino is an excellent platform for learning and development, the MicroView really enhances the experience. The MicroView is indeed a great tool for learning and is the spirit of Arduino. Great job in bringing this to us. Thank you SparkFun! Peace to all and happy 'making' cool stuff.

4 of **4** found this helpful:

Very Nicely Made

about 3 years ago by Member #522447 ✔ verified purchaser

In the car industry they call it fit & finish it is put together well .The uView Easy to use I have a Microview controlling a custom made Hexapod i built .Also a robot that looks like MO from Wallee it is his eye display and controls him also ,Bluetooth programmable he is 30cm x 30cm x50cm Programmer works well no hiccups. I am very happy with the Microview

3 of **3** found this helpful:

I forgot to order the USB programmer....

about 3 years ago by aseem ✔ verified purchaser

….so I havn't had much use for this amazing Oled arduino thing yet. It should definitively be a bundle in the Sparkfun netshop.

Update April 14: Got my USB programmer today, and had the MicroView up and running in 10 minutes. Great little thing, and I see many uses for it in my projects. I have much prior experience with Arduino and other platforms, and I just love the fact that this has the same power as an Arduino Uno AND has a built in display. Not as many GPIOs, but great for many projects. Really nice packaging, great display for its size. Love it!!. If things are going as planned, I'm soon going to need at least 10 of these.

> Single T replied on March 26, 2015:
>
> Sorry to hear you didn't get a programmer at the time of purchase. We sell them separately because a lot of people want to use one programmer to work with many displays. If you are interested in a kit, have a look at this. https://www.sparkfun.com/products/13205 Cheers

3 of **3** found this helpful:

Works like a charm

about 3 years ago by Member #397838 ✔ verified purchaser

Was up and running in no time. Ran a number of the tutorials and some experiments. I am surprised how fast you can update the screen given the fact you are updating a memory copy in the ATMELmemory space and copy the memory to the display memory each time you want to update the screen. I am still considering for which project to use this.

1 of **6** found this helpful:

Received two, both non-functional.

about 3 years ago by mikeh ✔ verified purchaser

Downloaded from Arrow.com.

First one, the display didn't work properly. The program that the Microview comes with was corrupted on the display and I couldn't program it. The second one the display looked great, but I couldn't program it either. The Microview is not ready for primetime yet…

Not Sparkfun's fault, they were very supportive and responsive throughout the support and return process. However, I cannot recommend this product at this time.

> Single T replied on March 11, 2015:
>
> So sorry for all the troubles. I'm glad we could get you all taken care of with your RMA. Cheers

★★★★☆ A lot of fun

about 3 years ago by Member #523636 ✔ verified purchaser

I've been enjoying using the MicroView because it lets me quickly get visual feedback from my project without having it plugged into a computer.

0 of **3** found this helpful:

★★☆☆☆ Microview OLED module

about 3 years ago by Member #120702 ✔ verified purchaser

I got two unit, both could not be programmed with the USB programming adapter. Following the instructions for opening the units and attaching the SPI wires I programmed the bootloader and got a successful programmed message. However, the devices still cannot be programmed via the USB programming adapter, but I could program the examples using my USBtinyISP programmer (the same one I used for burning the bootloader). So these modules are pretty much usless until I figure uout how to fix this. Sparkfun should never have shipped these units, and it shows very sloppy quality control.

> Single T replied on April 10, 2015:
>
> If you are having issues with your items, please contact us at https://www.sparkfun.com/returns

★★★★★ Solid Unit

about 3 years ago by Gnerffed ✔ verified purchaser

Anyone know for how much the 5-V regulator is rated? I know it's not "amps," but how many milliamps? :)

> Single T replied on May 28, 2015:
>
> Hi, It's rated for 5.0V and up to 500mA. Happy hacking

★★★★☆ It is a wonderful tiny device

about 3 years ago by Member #655724 ✔ verified purchaser

I am very impressed by the amount of projects you can do with this tiny device, only limited by the imagination. I consider the Microview OLED a modern wonder of the microelectronics at a very affordable price.

★★★★☆ All around good Arduino

about 3 years ago by Member #467178 ✔ verified purchaser

All around good Arduino, with easy breadboard insert and a OLED screen for live feedback.

★★★★★ Nice product

about 3 years ago by Member #697819 ✔ verified purchaser

Everything I needed for my project

★★★★☆ A perfect fit for my project.

about 3 years ago by Member #343495 ✔ verified purchaser

I prototype a lot of ideas for work and have found the MicroView an easy way to produce a functional prototype quickly.

Downloaded from Arrow.com.

★★★★☆ Very Handy

about 3 years ago by Member #441596 verified purchaser

This was easy to work with and it really helped cut down on development time.

I wish it had more i/o pins though.

★★★☆☆ mixed review

about 2 years ago by Member #486891 verified purchaser

I bought two. One failed very soon. The other I have had a lot of fun with- Game of Life.

> Single T replied on December 8, 2015:
>
> Give us a call. We'll be happy to help you.

★★★★☆ up and running fast, excellent library

about 2 years ago by Member #609098 verified purchaser

i was able to get up and running fast, developed a fast graphical output system with a 9DOF imu breakout feeding into the display. This is a really well thought out system, the only wishes I have would be more versions (3.3V, lipo w/USB charger, xbee adapter) - this is a fun little board.

★★★★☆ Second one

about 2 years ago by Member #15720 verified purchaser

I liked first one and got this one on sale without the Sik because I like the combination of the oled and Arduino. I also liked the examples in the Sik for it on codebender.

★★★★★ Great product

about 2 years ago by Member #445712 verified purchaser

Well done! Thanks

★★★★★

about 2 years ago by Member #413819 verified purchaser

Great product and very good documentation.

★★★★★ Makes debugging soooo much easier!

about 2 years ago by Member #750786 verified purchaser

Having a display is cool, but what makes the MicroView awesome is the easy to use widget and display library. Is that sensor really giving you the right signal? Throw a widget on the screen and see the raw input value. BOOM. The ability to quickly view internal state when developing sketches and circuits was an absolute game changer for me.

★★★★★ I was really able to shrink my Arduino based air quality sensor with this

about 2 years ago by Member #770162 verified purchaser

I have some more coding to do with this project, but after getting it out of the box, I was able to get this up and running in hours.

It shrank the foot print of my project by about ¾ the size. After looking around, I was able to find the commands I needed to display the value the sensor read on screen.

Since making the video on The Suburban Hippie Experimentalist, I have made some strides in making a better display.

I plan to add a better visual representation that allows me to see the indoor air quality at a glance from across the room, and a piece that will allow the sensor to be one small air quality sensor that plugs into any A/C outlet and is completely self contained, and is very small.

https://www.youtube.com/watch?v=fnvGfAFi6e0

Downloaded from Arrow.com.

★★★★★ Perfect Fit

about 2 years ago by NorthernPike ✔ verified purchaser

This little Arduino with a display worked out great for two of my projects. It's fast when drawing on the screen. The support libraries had everything I needed. Simple Copy/Paste/Meld/Morph processes for the code allowed me to easily represent my data. The big fonts are the ones I use. I've found people don't like the small text like those on the fit bits. I'm using this in a physically demanding way and it's proven to be a tough little device. The workflow of "Plug-into-FTDI" then "Plug-into-Project" then FTDI then Project then FTDI then Project is fine with me. The pins on the MicroView are strong and stiff. I also use it as a prototype item to eventually be replaced by the Micro OLED breakout and an Arduino compatible micro that is more appropriate for the final product. Like a Particle Photon for example. I have had nothing but good experiences with this device and would highly recommend it to anybody for consideration in their project.

★★★☆☆ Okay, but

about 2 years ago by Member #780063 ✔ verified purchaser

The packaging is very good. Size is great but the price is too high to use on a commercial project. It's good for personal project but would be too expensive to integrate into a manufactured design.

★★★★★ Love this little device!

about 2 years ago by Member #671377 ✔ verified purchaser

These things are so much fun. The display looks sharp and is really useful.

I've bought over 50 of them for various projects in the last couple of years, never had a problem with any of them.

It would be great if they had more memory (limited to begin with, and the Microview library takes up a lot) but still very very usable.

---

0 of **1** found this helpful:

★★★★☆ Cool for small project

about 2 years ago by Alan412 ✔ verified purchaser

This just works, and the library is very cool. .5 star off for the cost, and .5 star off for not having 3.3 available as a pin for peripherals that need that. (or it would be really cool if you could switch whether you got 3.3 or 5 out of the regulated power)

★★★★☆ Works as advertised so far.

about 2 years ago by NastyOlHermit ✔ verified purchaser

I wired it up and installed a demo it works as advertised so far. Haven't really had the time to really play with this as I've had 22 teeth pulled in the last 5 weeks and am dealing with the wreckage of 3 years of Cancer treatments.. I would think that a review should be spontaneous and not prompted by sales and marketing dweebs. As an engineer I really have a STRONG dislike for marketing monkeys.

★★★☆☆ Excellent concept, but very limited use.

about a year ago by Member #475510 ✔ verified purchaser

The font libraries are very limited and allow for very small text only. Itried many times to generate new full size font libraries using your sugjested tool, but was not able to do so. The product would be ideal for my application if there were larger text fonts available.

> Single T replied on October 3, 2016:
>
> Hi, I believe you may be interested in this tutorial on how to create your own custom fonts - http://learn.microview.io/Font/creating-fonts-for-microview.html

---

★★★★★ Very nice module

about a year ago by Member #567796 ✔ verified purchaser

I bought three of these. Since I'm a mechanical engineer and don't have a lot of experience with Arduinos it took me about 2 hours to download and install all the necessary stuff and communicate with the microview. Once I got that sorted I built all 11 learning kit circuits. Now it's on my desk as a temperature display. The

Downloaded from Arrow.com.

included libraries for widgets (Gauge and slider) is somewhat limited, but I can live with it. Next I am going to use it to drive a brushless motor and use the PWM to drive a haptic device. There are enough IOs left for most projects. Now we need a photon with integral display.

★★★★★ Awesome device

about a year ago by BB_Sailor ✔ verified purchaser

within 15 minutes of opening the package with the OLED display and Microview programming module I had the demonstrations operating. Excellent packaging and the demos provide lots of good ideas for real world usage. Plan to use this as a standalone debug to display status, commands, etc for an arduino powered robot when disconnected from the USB.

★★★★☆ really great looking

about a year ago by ru83n5 ✔ verified purchaser

i use it for a pressure gauge on a water line and works perfectly and brings a great looking

---

★★★★★ Fascinating product

about a year ago by Member #644832 ✔ verified purchaser

You can do almost anything with this gadget from text to graphics to design your own meters. Most fun i've had at the bench in a long time.

★★★★★ Great Arduino, and tiny, with sharp display

about a year ago by Member #590771 ✔ verified purchaser

It took just an hour to swap the Arduino Nano in my PWM controller for this MicroView and add the messages for voltage and charge status. I really like the tiny size and "finished product" look of the MicroView. I also really like the small size but that rebounds as a small display. I tried a couple different fonts and ended up using the smallest since that lets me put more info on the screen.

I bought 2 just because. I'm looking forward to doing a project with digits for instantaneous reading and a graph for trends. The screen is very easy to manage, so I expect more fun.

★★★★★ Super miniaturization feat!

about 7 months ago by Member #1059444 ✔ verified purchaser

Discovered that it was pretty involved for my 10 y/o grandson. However, don't hesitate to purchase the inventor's kit because it has a lot of things to experiment with. Once you get the hang of the programming language and the mountain of libraries available it's a cinch to make it do what you want. No matter what I program I'm sure someone will come out with something far beyond my abilities. Look around!

★★★★★ A Manual Is Needed

about 6 months ago by Member #711850 ✔ verified purchaser

The MicroView performs an important function. I use it in an alarm system to indicate the elapsed time since power was applied to it, which is when the larger system was triggered. This is the simple program I put into the MicroView:

include

void setup() { uView.begin() ; uView.clear(PAGE); uView.display();

} int mn=0; // minutes int sc=0; // seconds

void loop() { delay(1000); sc=sc+1; if (sc>=60) { sc=0; mn=mn+1; }

```
uView.setCursor(0,0);
uView.print("Minutes  ");
uView.setCursor(0,20);
uView.print(mn);
uView.display();
```

} What I need is an easy way to increase the font size. Sam

Downloaded from Arrow.com.

★★★☆☆ Random blank display problem

about 5 months ago by jremington ✔ verified purchaser

I recently purchased the MicroView thinking it would suit my needs. I was especially pleased to see that display power is under program control, so that sleep modes can be used for battery powered projects.

However, about half of the Arduino examples, although successfully compiled, linked and uploaded, produced only a blank display. I suspect a timing problem with display initialization (as the OLED display data sheet explains). I ended up sending the unit back, as Technical Support was not helpful in solving the problem (suggested I buy the custom programmer).

For the record, I'm using Win7 Pro-64, Sparkfun FTDI Basic USB serial adapter and Arduino IDE 1.8.2, with zero problems on several other types of Arduino boards.

★★★★★ All good except the price

about 2 months ago by Member #394180 ✔ verified purchaser

I've bought 5 so far and they've all done exactly what I wanted them to do. With a little work and thought it's amazing how useful a ¾" display is. One of my apps shows speed, remaining distance, remaining time, compass heading, number of GPS satellites and fix quality using the display widget objects. All easily readable and easy to code.

The only downside is the price. It's about double what it feels like it should be, probably based on an unconscious appraisal of what kind of use I'm getting from it and what it would take to replace it with cheaper parts - basically, what I'm paying for pretty. I get around this by waiting for sales where this part is heavily discounted and buying then.

> CF replied on January 15, 2018:
>
> Thank you for your review! You might check out our Micro OLED Breakout. It's the same display, but doesn't include the Arduino and case. You could drive several displays from a single Arduino if you hook them up right.

★★★★★ Super handy

about 3 weeks ago by Member #695862 ✔ verified purchaser

I love having a screen that's easily available for displaying tiny, but legible, messages. Uno compatible its not cheap but an elegant form factor.

★★★★☆ Great for embedded projects that require a display

about 2 weeks ago by mizraith ✔ verified purchaser

As long as you keep it simple, this bugger is great for embedded projects that need as mall display. For instance, I have done a PWM controller (slide-pot input to PWM) and used the display to show % and the output state. I've also used this as a basic dial gauge, and even as a metronome.

However – the MicroView *does* make some compromises. First, their graphics library is not the fastest…and the ATMega328 is also not the speediest chip. You'll need to be wary of how frequently you post screen updates. The other compromise – a lot of pins are obviously not brought out, so you'll need to study the data sheet to make sure this is up to your task.

Again – a great device (I've bought at least a half-dozen) for simple embedded projects. It's really small!

★★★★★ works as advertised

about 3 years ago by Member #80224 ✔ verified purchaser

This was easy to get up and running. The hardware is great. My main gripe is with the API provided. The documentation could use some improvement.

★★★★★ Solid Plastic, MicroView, it's Fantastic

about 3 years ago by Member #500009 ✔ verified purchaser

One of the goals for this device was to provide a simple way to watch variables in a sketch. If it only did that, it would have been great, but the graph libraries make it easy to generate graphs to visualize the results as well. I bought this along with a three axis magnetometer for a "simple" project with a very poor understanding of either how an I2C interface or how a magnetometer actually worked. Being able to see output graphs right on the device has been really helpful for troubleshooting and scaling the responses in real time. (Instead of taking

Downloaded from Arrow.com.

the serial log and then working with the data separately.) The graphs were easy to set up and use following the examples at Codebender. (Huge kudos to CodeBender, that's a separate rave.) I also have to echo the other reviewer's comments on the fit and finish of the device. It's definitely a slick little package, feels durable, and the heavy pins aren't getting bent all over the place either. It would be nice if price dropped over time, but even so this is a very fun device to use, and I can see buying them for other "simple" projects.

★★★★☆ Great product

about 3 years ago by Member #477024 ✔ verified purchaser

Love it. Hooking it up to xCode (mac) was a piece of cake: Plug and play. So played around a bit before using a real project, and I found the display incredible crispy, sharp and pretty fast. Due to the microview library and examples, you're able to start using it without any knowledge (besides arduino knowledge :-))

★★★★☆ Great LItte Arduino

about 3 years ago by Swain ✔ verified purchaser

The MicroView is a great little Arduino. The ability to display values directly on the device is simple to program and better than needing the controler hooked up to the computer.

I hope in future version might iinclude up/down/left/right/down to select imput. The addition of a joystick style input wiht either pushing the full display on the edges with physical buttons.. Or a small touch screen overlay with thes same bsic inputs.

On the technical side I use a Mac for most things and the programer fits upsid down in my usb port. I'm not sure why I would ever directly plug the device into the side of a laptop to use. Overall it would be better to just put a micro USB connector on the programer so that the MV connects like other microcontrollers. That is unless BTLE or wireless is added and the program just gets chucked away.

START SOMETHING.

SUBSCRIBE TO NEWSLETTER

SUBSCRIBE TO NEWSLETTER

In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

About Us
About SparkFun
SparkFun Education
Feeds
Jobs
Contact

Help
Customer Service
Shipping
Return Policy
FAQ
Chat With Us

Programs
Become a Community Partner
- Community Stories

Custom Kit Requests
Tell Us About Your Project
Sell Your Widget on SparkFun
Become a SparkFun Distributor
Large Volume Sales

Community
Forum
SparkFun IRC Channel
Take the SparkFun Quiz
SparkFun Kickstarter Projects
Distributors

What's on your mind?

For which department?

General

Please include your email address if you'd like us to respond to a specific question.

email address

SUBMIT

Downloaded from Arrow.com.

Downloaded from Arrow.com.