



AdaBox 018

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Introduction

Hi there!

[If you're looking to subscribe to AdaBox, click here! \(https://adafru.it/tNC\)](https://adafru.it/tNC)

If you're here, it's because you were given the gift of electronics with an AdaBox! Perhaps you are a beginner who is getting started with your AdaBox. Or maybe you just want to relive what it's like being a beginner at electronics again. But most of all, you want to learn how to build and make creative, awesome stuff with electronics, displays, graphics, and coding! ([If, rather than learn all that, you'd like to look at pictures of cats instead, please check https://www.adafruit.com/galleries/cats-of-engineering \(https://adafru.it/oAd\)](https://www.adafruit.com/galleries/cats-of-engineering))

And, you're in luck: there's *never* been a better time. Seriously. We're not just saying that. It's wild how great a time this is for you to learn home automation, electronics, environmental sensing, color displays, coding, graphics, and Internet-connected WiFi projects!!

Gone are the days where you need thousands of dollars of equipment and a physics/math background. Nowadays, if you want to learn to work with electronics and code microcontrollers, you can jump right in for \$100 or less and any sort of computer. And we're talking about learning *a lot* of electronics, graphics, coding, and wireless action - from the basics of setting up a microcontroller, to customizing your graphics on a TFT display, and doing it wirelessly! Soon you'll be tracking your mail deliveries online and using the power of the internet to remind you to fill Fluffy's water bowl!

Who is this for?

Anyone who is interested in learning how to program and build interactive projects, and with access to a modern web browser. That's pretty much the minimum. Remember, this guide is specifically for people who have purchased or received an AdaBox subscription!

You don't need to know a lot of physics or math, and just like an Art Degree isn't required for making art and being creative, **you *don't* need to have a computer science or mechanical engineering degree**. It helps if you're comfortable using computers but that's a skill most people pick up through life.

If you know how to program already - great! If not, don't worry, we'll teach you enough to be dangerous.

Who isn't this for?

While you can follow along without an AdaBox, it will not make as much sense unless you have *all* of the components and more which either came as a gift or purchased yourself - remember, the goal is helping beginners!

This guide is also not for snails. Snails are interesting creatures, but [they're probably chilling out in their shells instead of coding](https://adafru.it/Pdn) (<https://adafru.it/Pdn>).

If you're an expert, please visit our thousands of other tutorials and jump right in at [learn.adafruit.com](https://adafru.it/dlu) (<https://adafru.it/dlu>)

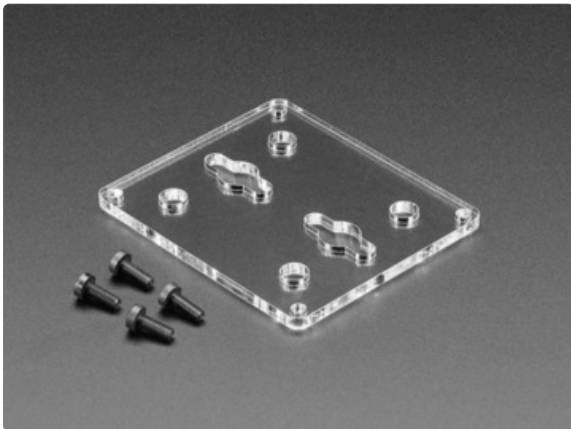
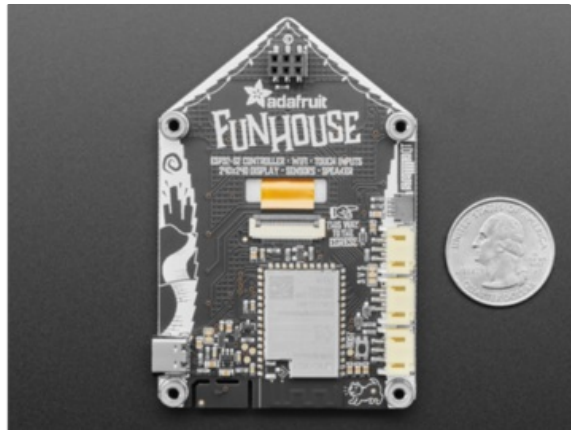
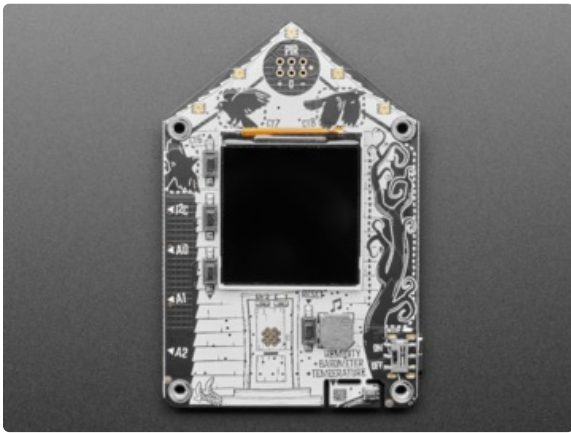
Who are you?

Great question. This is me:

I'm Ladyada, and I love to teach people how to build stuff and how they can be creative with technology.

So, are you ready?

Let's do this thing!



Adafruit FunHouse

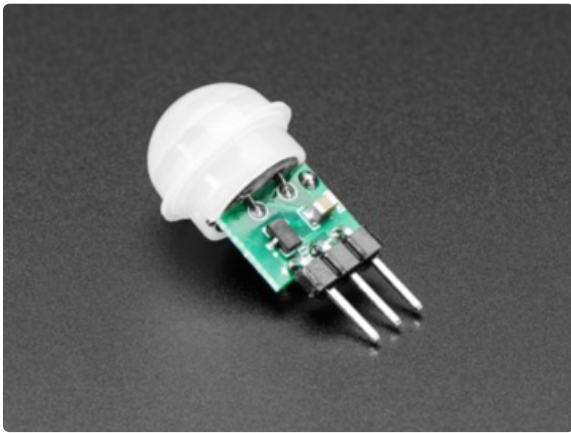
Home automation made easy, with little or no soldering.

Comes with light, pressure, humidity and temperature sensors.

Three JST PH plugs allow for quick connection of STEMMA boards that use digital or analog I/O, and a STEMMA QT port for any I2C devices.

Acrylic Backplate Kit

This clear back-plate attaches to the FunHouse to make wall-mounting easy. Includes some M3 screws to attach with.



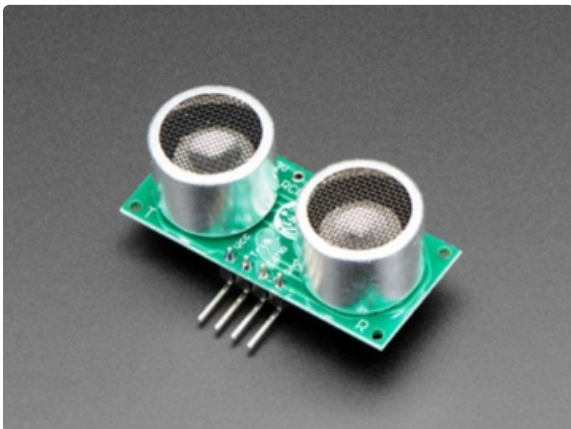
Mini PIR Sensor

Plug into the front of the FunHouse to detect motion.



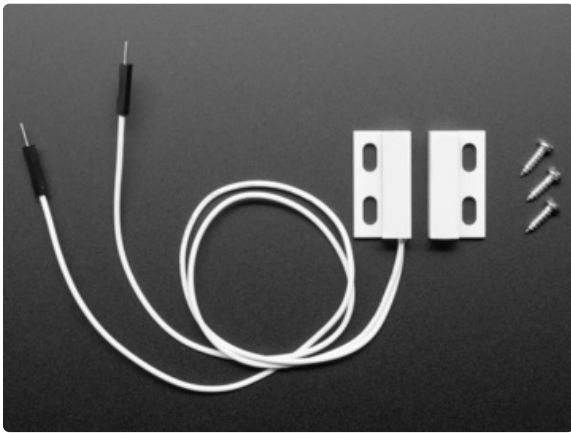
Infrared Breakbeam Sensor

This invisible sensor can quickly detect when something is in between the emitter and receiver, up to 10" apart.



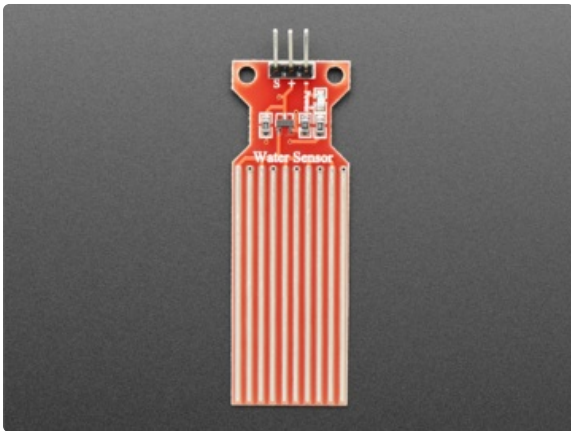
Ultrasonic Distance Sensor

Measure distances of up to about 3 meters.



Magnetic Door Sensor

This sensor lets you know when a door, drawer or window has been opened.



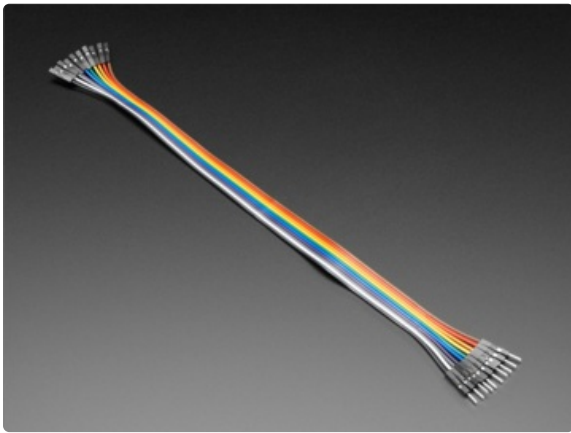
Water Sensor

Keep wet things wet, and dry things dry by detecting when the dry things get wet by accident!



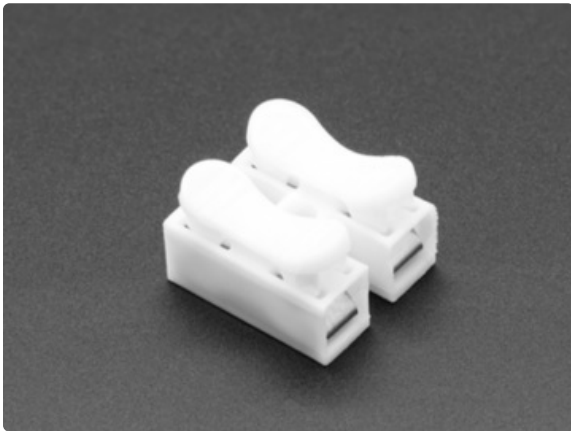
JST PH 3-Pin Socket Cables

Use these to connect the sensors to your FunHouse board with no soldering.



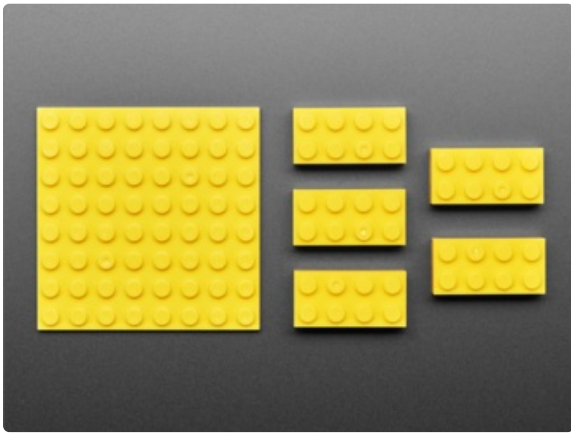
Extension Jumpers

Plug these into your sensors when you need to get loooooong.



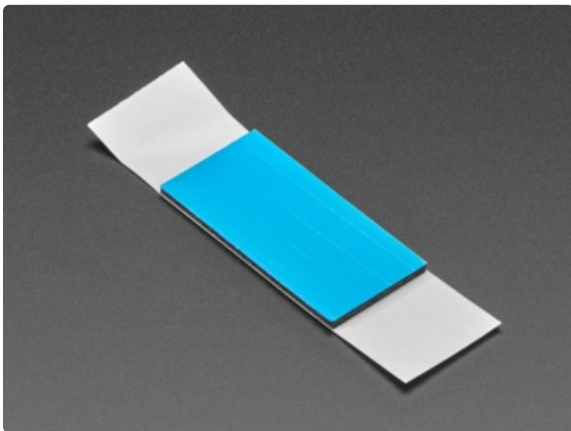
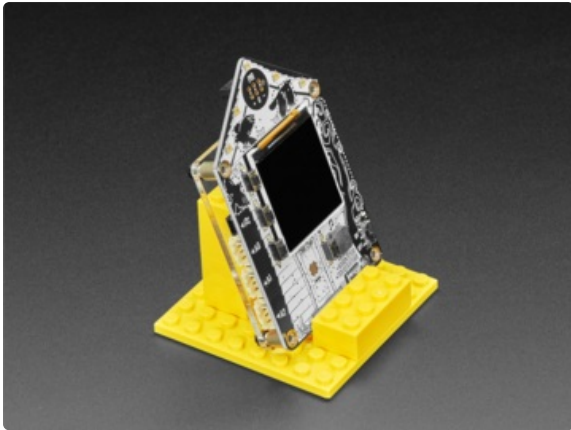
Wire Quick Connects

If you have your own sensors or wires, these quick connects are a handy way to attach two wires with no soldering.

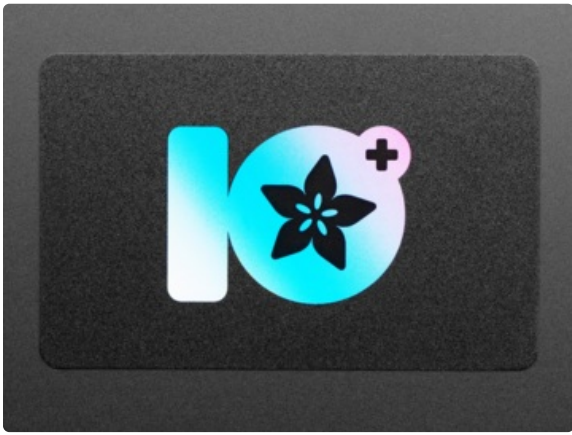


Yellow Plate and Brick Set

Craft a desk stand with these golden bricks.



Double-Sided Foam Tape



Adafruit IO+ One Year Free

Unlock a full year of Adafruit IO+, with extra feeds and capabilities!

Redeeming the Adafruit IO+ Subscription Pass

[Adafruit IO](https://adafru.it/fH9) (<https://adafru.it/fH9>) is our IoT cloud service built from the ground up. Our basic free account is great, and lets you have plenty of feeds and dashboards. But maybe you want *more* than 'plenty'. Adabox 018 includes a one-year subscription pass to [Adafruit IO Plus](https://adafru.it/Eg3) (<https://adafru.it/Eg3>) which upgrades your account's limits to:

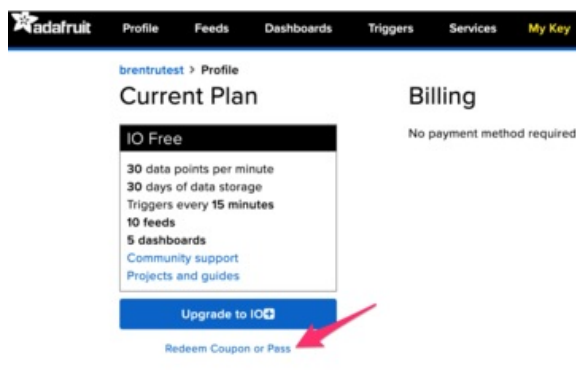
- **60** data points per minute
- **60** days of data storage
- Triggers every **5 seconds**
- **Unlimited feeds**

Also, when we add new features to Adafruit IO, we make sure they're always available to IO Plus subscribers first.



The Adafruit IO Plus card included in your Adabox should have a subscription code printed on the back (we've redacted it in this image).

First, if you do not have one already, [sign up for a free Adafruit IO Account](https://adafru.it/Eg2) (<https://adafru.it/Eg2>).



Log into your Adafruit IO account and navigate to <https://io.adafruit.com/profile> (<https://adafru.it/BmD>).

Under "Current Plan", click "Redeem Coupon or Pass".

Redeem a Coupon or Pass

SECRET CODE

Check Code

Enter the secret code from the back of your Adafruit IO Plus card into the text box.

Click "Check Code".

Redeem a Coupon or Pass

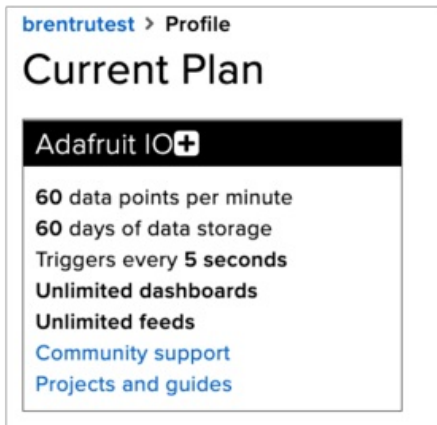
Yes! This code is valid for: 1 Year of IO Plus

Click **Redeem Pass** below to confirm. Redeeming this pass subscription immediately.

Redeem Pass

Cancel

Click "Redeem Pass" to apply the pass to your account.



brentrutest > Profile

Current Plan

Adafruit IO+

- 60 data points per minute
- 60 days of data storage
- Triggers every 5 seconds
- Unlimited dashboards
- Unlimited feeds
- Community support
- Projects and guides

After redeeming the pass, you will be taken back to the profile page. Underneath "Current Plan", your account should reflect that it's now an Adafruit IO Plus account!

If you are experiencing issues with redeeming your code, please visit <https://io.adafruit.com/support> (<https://adafru.it/Sgb>) and click "Contact Adafruit IO Support".

Adafruit FunHouse

[Adafruit FunHouse \(https://adafru.it/RQf\)](https://adafru.it/RQf)



FunHouse Projects with CircuitPython

[FunHouse Projects with CircuitPython](https://adafru.it/RZA) (https://adafru.it/RZA)

FunHouse Door Alert w Email Notification

[FunHouse Door Alert w Email Notification \(https://adafru.it/RZB\)](https://adafru.it/RZB)

Using FunHouse with HomeAssistant

[Using FunHouse with HomeAssistant \(https://adafru.it/RZC\)](https://adafru.it/RZC)

FunHouse Mail Slot Detector

[FunHouse Mail Slot Detector \(https://adafru.it/SdM\)](https://adafru.it/SdM)

FunHouse 3D Printed Stand

[FunHouse 3D Printed Stand \(https://adafru.it/SdN\)](https://adafru.it/SdN)

Motion Activated Outlet with FunHouse

[Motion Activated Outlet with FunHouse \(https://adafru.it/SdO\)](https://adafru.it/SdO)

Pet Bowl Water Level Sensing

[Pet Bowl Water Level Sensing \(https://adafru.it/ShA\)](https://adafru.it/ShA)

