

# Getting started with Edison

Edison is a robot we can use to learn new things, including how to code. In this activity, you will learn about the Edison robot and a coding language called EdBlocks.

To use Edison and EdBlocks, there are a few questions we need to answer:

- What is a robot?
- How does the Edison robot work?
- How do you make a program for Edison using EdBlocks?
- How do you download a program from EdBlocks to Edison?

Once you know the answers to these questions, you will be ready to code Edison with EdBlocks!

## What is a robot?

A robot is a machine that can be made to do a task on its own. There are many types of robots. Different robots can do different things.

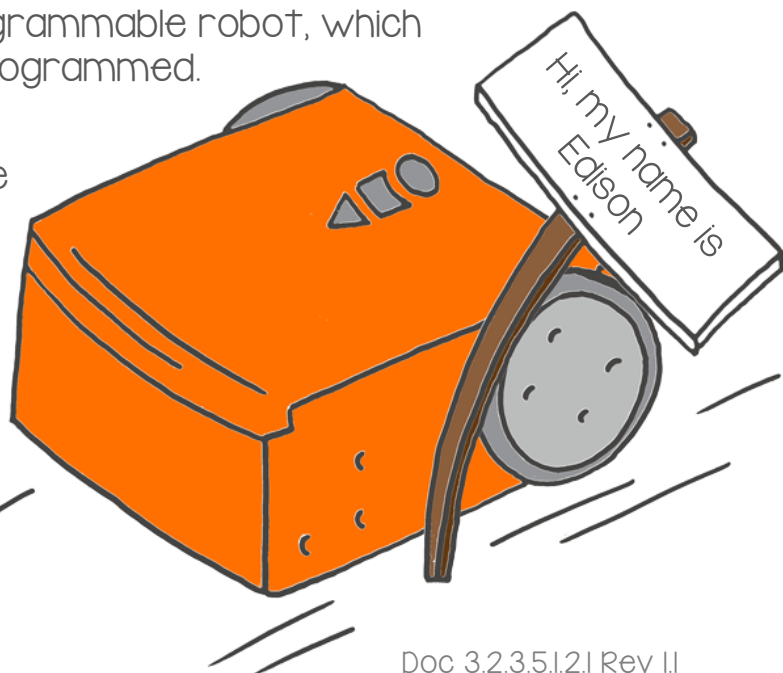
What do you think of when you imagine a robot?

This is Edison. Edison is a programmable robot, which means that Edison can be programmed.

Programmed means that we can tell Edison what to do.

We can program Edison different ways.

One way to program Edison is by using a programming device, like a computer, with a programming language called **EdBlocks**.

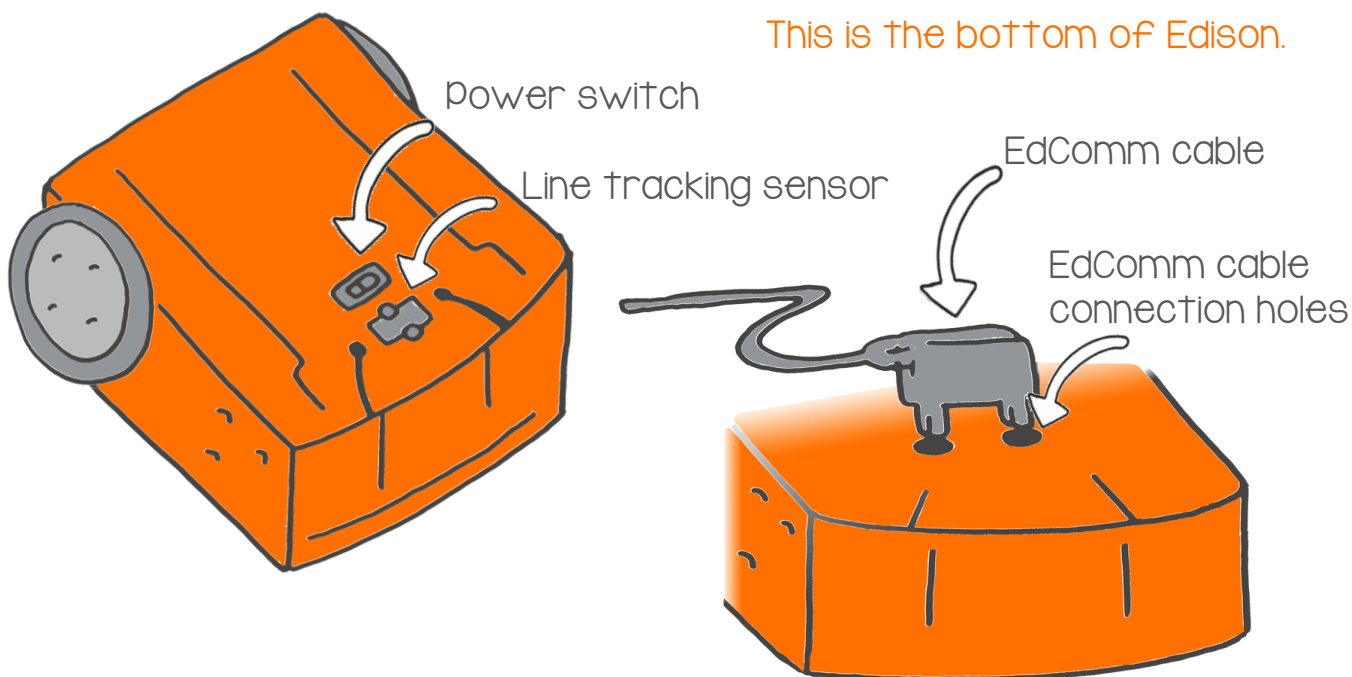
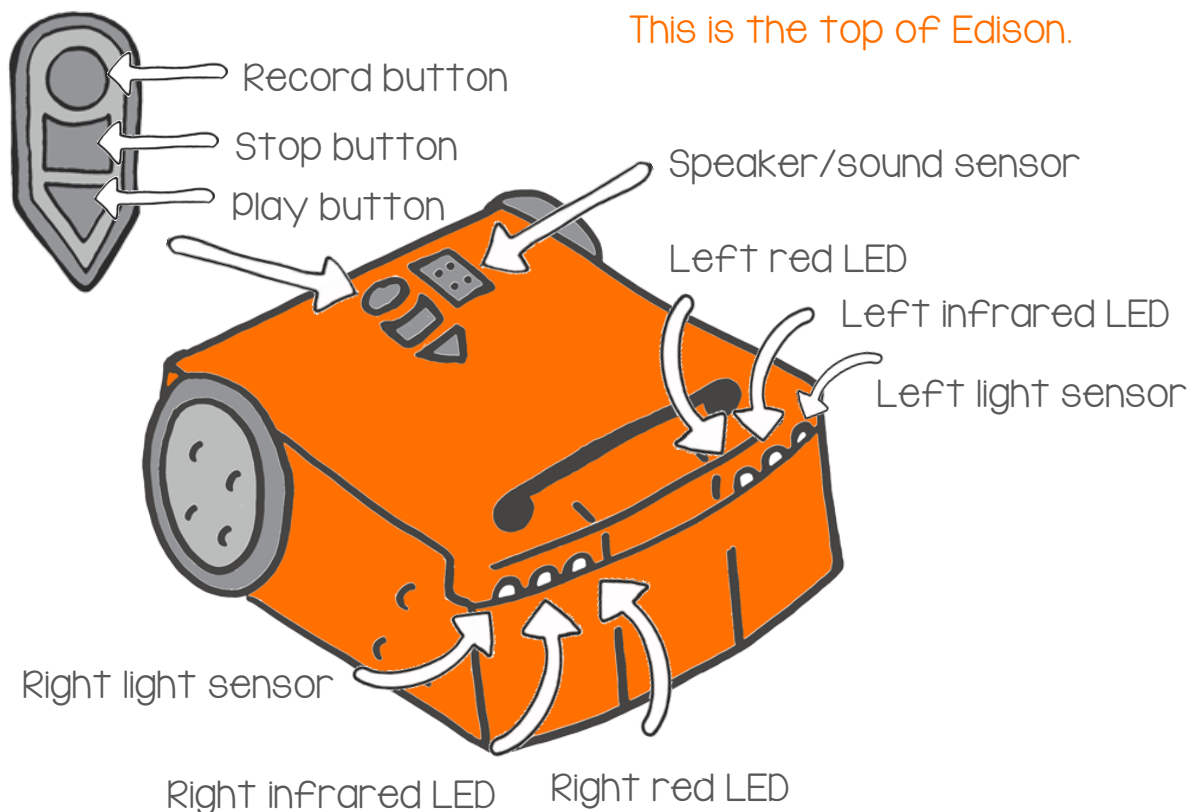


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### How does the Edison robot work?

Edison has different parts that let the robot do different things. The motors and wheels let the robot move. The speaker makes noise. And the sensors let the robot react to different things.

In the pictures below, you can see all of Edison's different parts. Can you find all of these parts on your Edison robot?

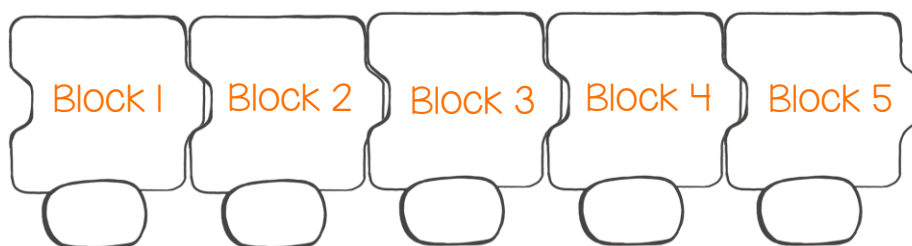


## How do you make a program for Edison using EdBlocks?

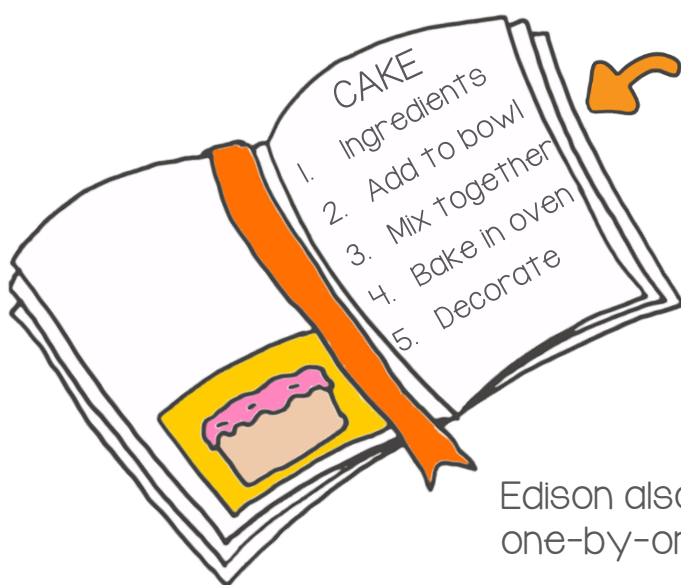
Just like a person, Edison can follow instructions. The robot just needs the instructions to be blocks of code, not words. One way to give Edison instructions is to use EdBlocks.

EdBlocks is a robot programming language. We can use EdBlocks to tell Edison to do different things by writing programs for Edison.

You make a program for Edison by attaching different code blocks together in EdBlocks.



An EdBlocks program tells Edison both what to do and in what order to do each thing. The order of the blocks is very important!



Imagine you want to bake a cake. How will you know what to do?

You could follow a recipe. The recipe has each different thing you need to do in order. You just need to follow each step one-by-one.

This is called **sequence**.

Edison also uses sequence and follows steps one-by-one.

An EdBlocks program gives Edison each step to do plus the sequence to follow. Edison reads EdBlocks from left to right, starting at block one. Edison moves along the EdBlocks program, doing each step one block at a time, in sequence.



## How do you download a program from EdBlocks to Edison?

You can make different programs for Edison in EdBlocks which tell Edison what to do. Once you write a program for Edison, you need to download it from your computer to your Edison robot.

On your computer, go online to:

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

Let's load a program that has already been made. You can then download it to Edison. Here's what to do:

### Step 1: Open the EdBlocks app

This is the app at [www.edblocksapp.com](http://www.edblocksapp.com)

### Step 2: Select 'Menu'

After opening the app, look in the top left corner.

Click on the Menu button.



### Step 3: Select 'Load Demos'

Scroll down and find 'Load Demos' in the list.

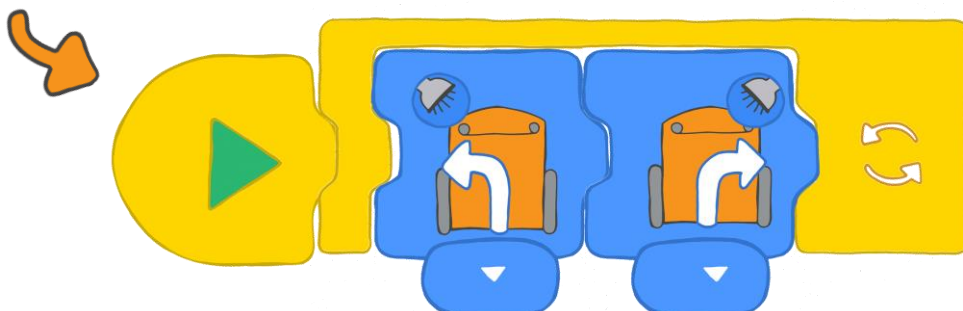
Click on Load Demos.



### Step 4: Select 'Follow torch/flashlight'

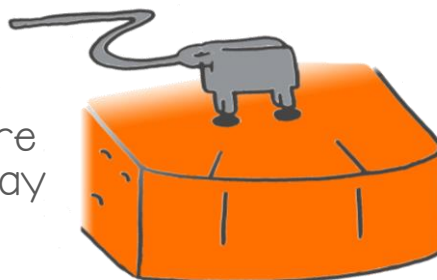
Find and click on the program called 'Follow torch/flashlight'.

A program will open in the main screen. It looks like this:



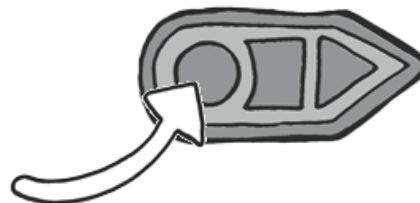
### Step 6: Plug Edison in

Connect Edison to the computer with the EdComm cable. Make sure the volume is turned up all the way on the computer.



### Step 7: Get Edison ready

Push the record button (round button) on Edison one time.



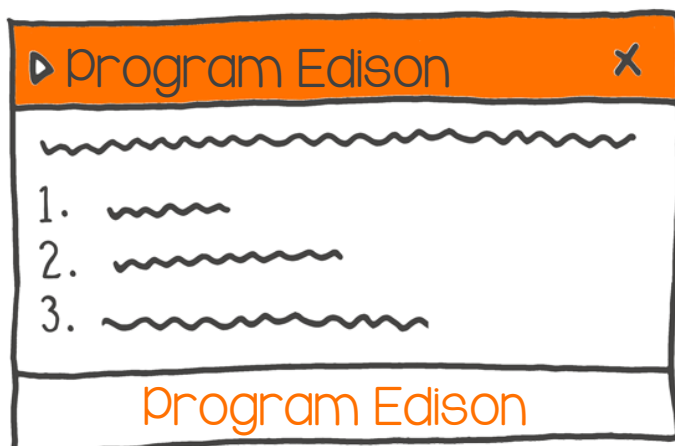
### Step 8: Program Edison

Look in the top right corner of the app. See the button that says 'Program Edison'?

Click the button one time.



A new pop-up message box will open.



Edison cannot understand the blocks in EdBlocks the way they look on your computer screen. The blocks need to be changed into a format that Edison can understand before the program can be downloaded. This can take a bit of time.



Once the program is ready, the bottom of the pop-up box will have a button that says 'Program Edison'.

Click on this button.

You will hear the program being downloaded to Edison. Once it is done downloading, Edison will make a happy beep. Don't unplug Edison until you hear the beep!

Once you hear the beep, you can unplug Edison.

You are now ready to run the program in Edison!

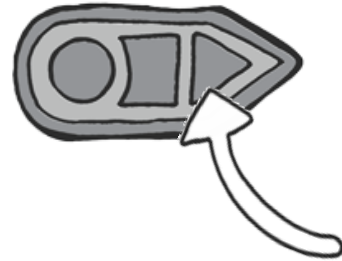
### Run the program in Edison

Grab a torch (which is also called a 'flashlight' in American English).

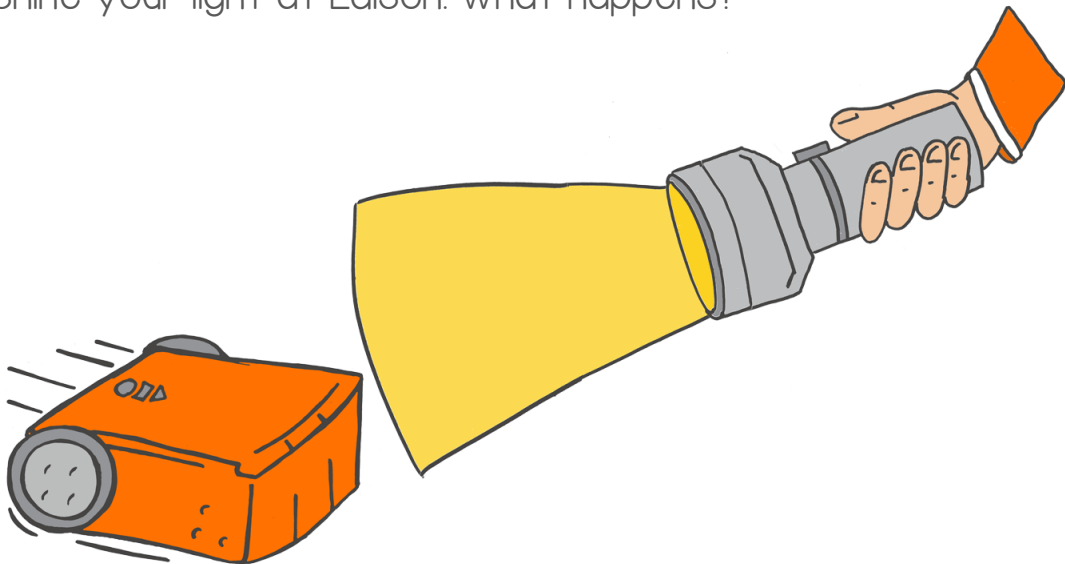
Put Edison on the floor or table and get your light ready.

Press the play button (triangle button) one time.

Pressing the play button tells Edison to run the program you downloaded into the robot.



Now shine your light at Edison. What happens?



Edison will follow the brightest light it detects. That means you can use your light to get the robot to follow you around!

To end the program and stop Edison, push the stop button (square button) one time.

**That's it!**

You are now ready to start programming with Edison and EdBlocks!