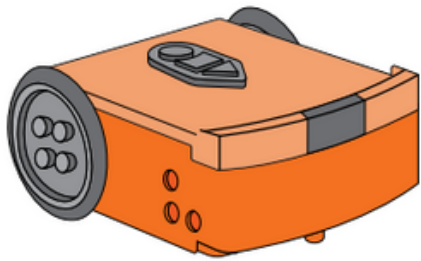


Let's explore our Edison robots

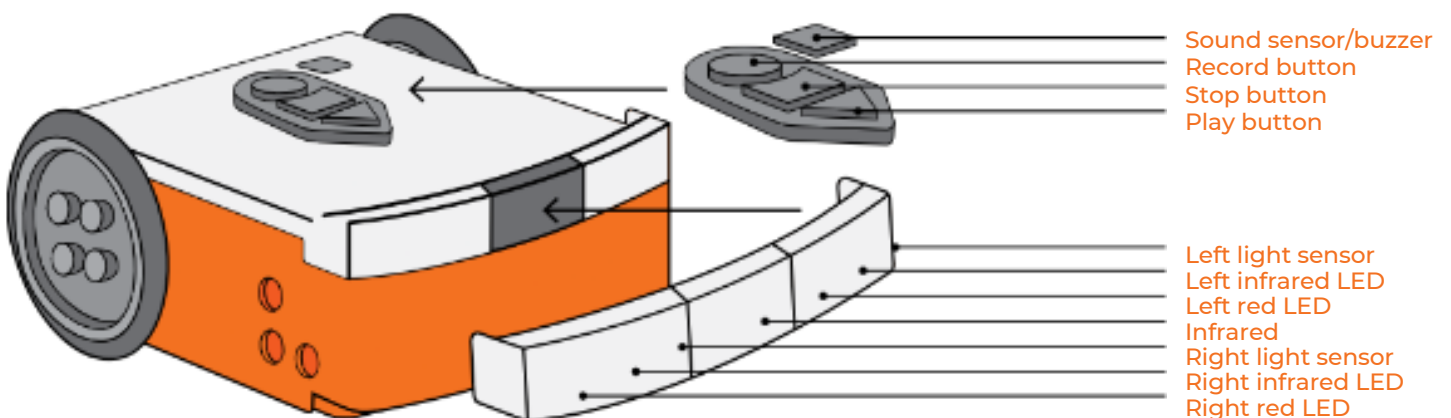


This is Edison, the programmable robot. There is a lot we can do with our Edison robots. We can program the robot to do things like drive using its motors, flash its LED lights or make sounds. We can also use Edison to build robotic creations, complete mazes and a whole lot more!

Before we start using Edison, we need to get to know a bit more about the robot.

Look at Edison from the top

Have a look at the top of your Edison robot. Try to find all of the parts labeled in the picture on your Edison robot.



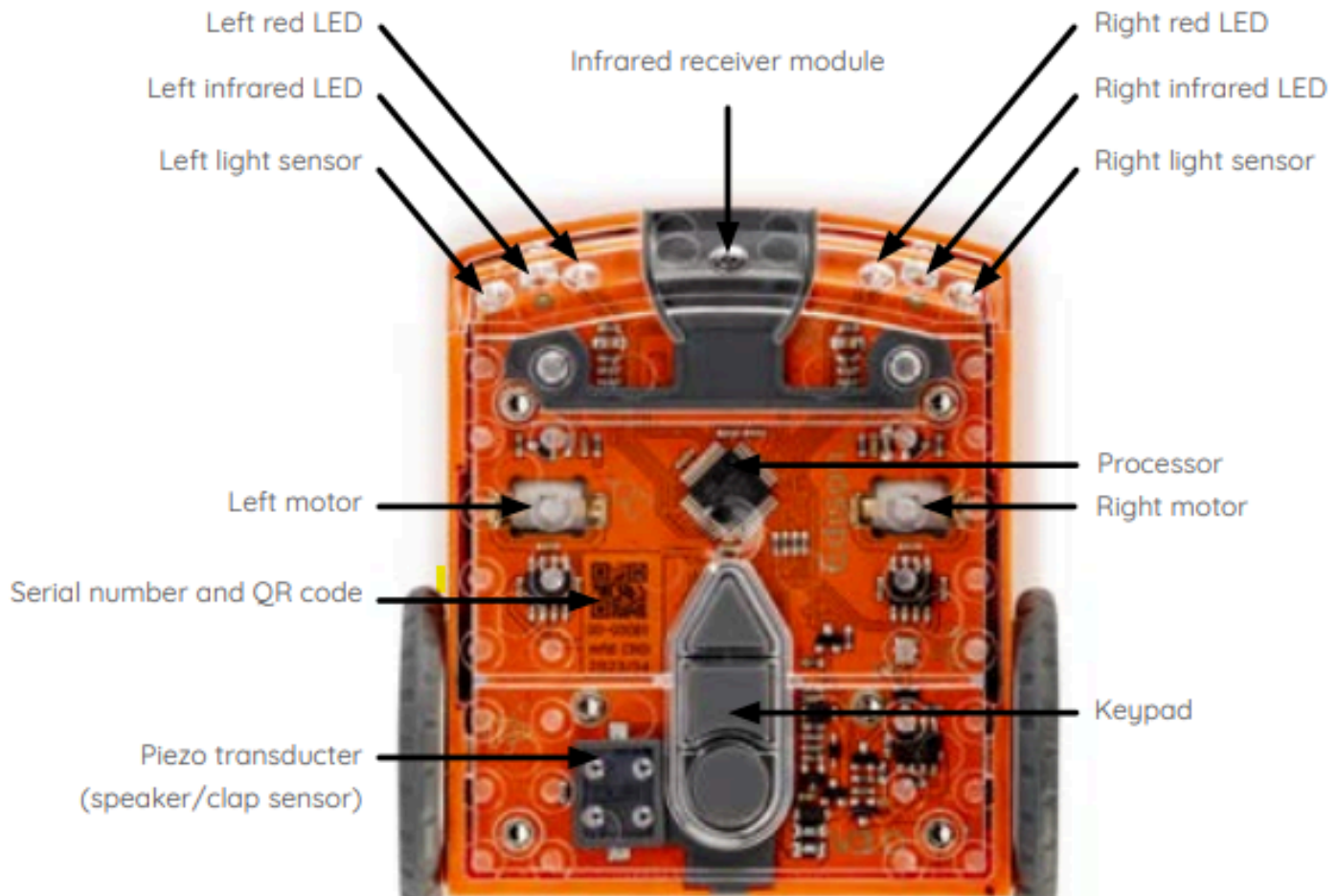
Why is that?

The top of Edison is made of clear plastic. This way you can see the electronic components. One of the most important parts is the black colored square that sits just above the tip of the 'play' (triangle) button.

Can you see it? This is the robot's microchip. The microchip is basically a tiny computer, which is sometimes called a micro computer. It contains the central processing unit (CPU). That's basically Edison's brain!

Motherboard layout

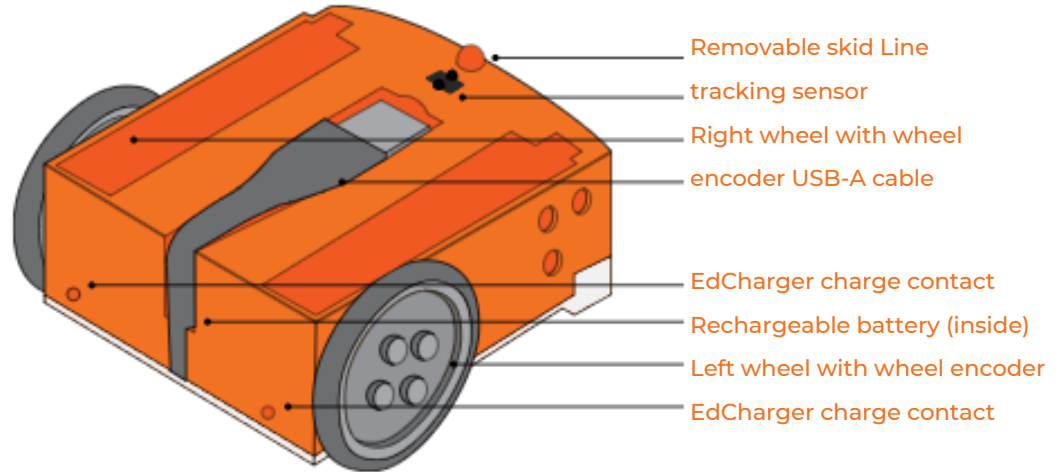
Have students look at their robot to find the different sensors they see on this motherboard!



Task 2: Look at the bottom of Edison

Look at Edison from the bottom

Flip Edison over. Look at this picture and try to find all of the parts labeled in the picture on your Edison robot.



Remove and attach the wheels, and the skid

A few of Edison's parts can be detached from the robot. Both of Edison's wheels can be taken off. Try removing one of the wheels by pulling it straight out away from the robot. Look at the powered socket where the wheel attaches. Be sure to put the wheel back in!

Buttons on top

Edison V3's top has a key pad which includes three buttons. The shape of the buttons and the number of presses will determine Edison's behavior.

Play button
(triangle button)
1 press = turn on
(when off)
1 press = run
program

Stop button
(square button)
1 press = stop
program
press 3 seconds =
turn off

Record button
(round button)
1 press = download
program via
screen flasher
3 presses = scan
barcode

Task 4: Turn Edison on

Whenever we want to use Edison, we need to turn on the robot. Try to turn Edison on now.

1.What happens when you turn the robot on? Describe what happens including what you saw and what you heard. Write your answer here:

Example student answer: When I turned Edison on, the red LEDs came on and started flashing. Edison also made a chirping noise one time.



Don't forget

Whenever you finish using Edison, make sure you turn the robot back off!

Name_____

U1-1.1a Change it up: Bricks, blocks and Edison

Take a good look at Edison. Do you see all the bumps and holes on the top, sides and bottom of the robot?

You've probably seen studs just like the ones on the top of Edison. Why do you think the robot has those studs plus the holes on the sides and bottom of Edison?

Those are all connection points to build with Edison using any LEGO brick compatible building system.

There are lots of things we can build using Edison and different types of building systems. In this activity, your goal is to build something with LEGO bricks and Edison.

What to do

Get your Edison robot, grab some blocks and let your creativity and imagination flow!

Decorate Edison however you would like!

Once you finish, write a description or draw a picture of what your Edison looked like all brick-and-blocked up. How did you build with Edison?

