Let's detect obstacles

We can write a program that will stop Edison from running into objects.

This program uses Edison's infrared light sensors.

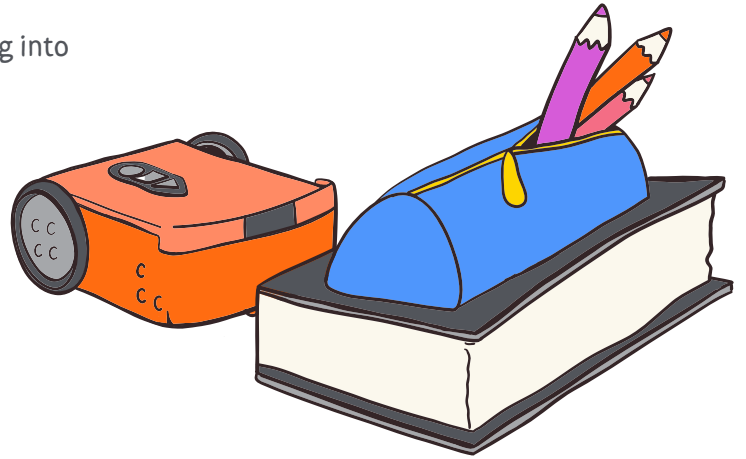## What is infrared light?

There is a wide range of light. People can see some of this range, but not all.

Infrared light (also called IR) is invisible to people.
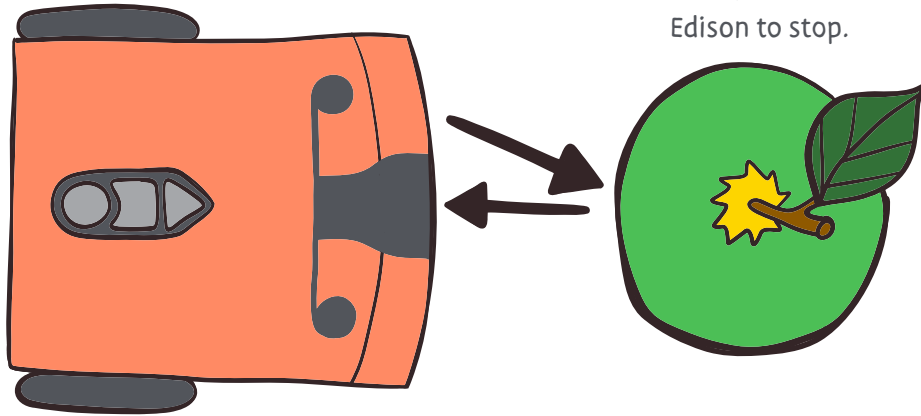
Did you know you use IR a lot?
Infrared light is used in TV remote controls.
It is how the remote tells the TV to change the channel or turn up the volume!

Infrared light reflects off the object.

Edison detects it and the program tells Edison to stop.

Infrared light and Edison

Just like a TV remote, Edison can use infrared light.

Edison has two IR light emitter diodes (or LEDs) on the front, one on the left and one on the right.
Edison also has an IR sensor on the front, right in the middle.

We can program Edison to use IR to find obstacles and avoid running into them. Using EdBlocks, we can write a program that tells the IR LEDs to send out infrared light. That light is reflected off any objects nearby and bounces back towards Edison. Edison can detect that light with the IR sensor. Our program tells Edison not to run into any object it can detect.

Left infrared LED

Infrared sensor

Right infrared LED