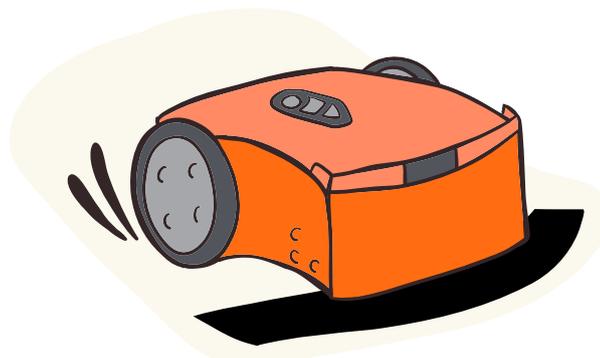


Let's stay in the borders

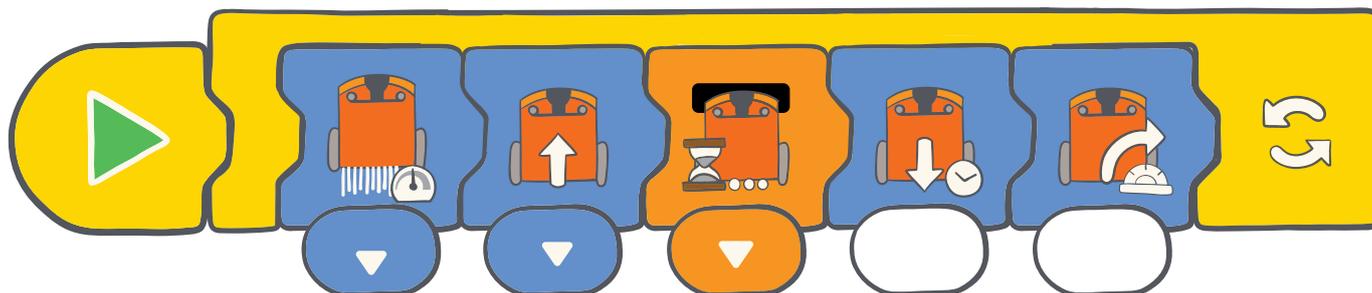
Remember Edison's tracking sensor?
It is the sensor that lets Edison see the difference between dark and light surfaces.

We can make a program that uses the tracking sensor to tell Edison to avoid crossing a black line.



What to do with EdBlocks

Using the EdBlocks app, arrange the blocks to match the program here:



The first block sets Edison's speed – you can choose slow, normal, or fast.

The second block tells Edison to drive forward

The third block tells Edison to wait until it detects a dark surface.

Then the fourth block tells Edison to drive backwards.

The fifth block tells Edison to turn right.

You will need to experiment to work out how much time to put in the 'drive backwards' block, and how many degrees to put in the 'turning' blocks.

What to do with Edison

Use some black tape to create a border on a desk for Edison to stay inside.

You can also use the previously used Edison track or draw a black border on a large piece of paper.

Download your program to Edison.
Run the program with Edison in the border.
Experiment with your program.

Test different values in the 'reverse' block and the 'turn right' block.

You should also try using different speed blocks to see what happens.

Find the answer

1. What time, in seconds, worked the best in the 'drive backwards' block?

2. What angle, in degrees, worked best in the 'turn right' block?

3. Which speed block worked best? What made it the best choice?

4. What if cars had a program like this in real life. Would that be good? Why do you think it would be good or bad?
