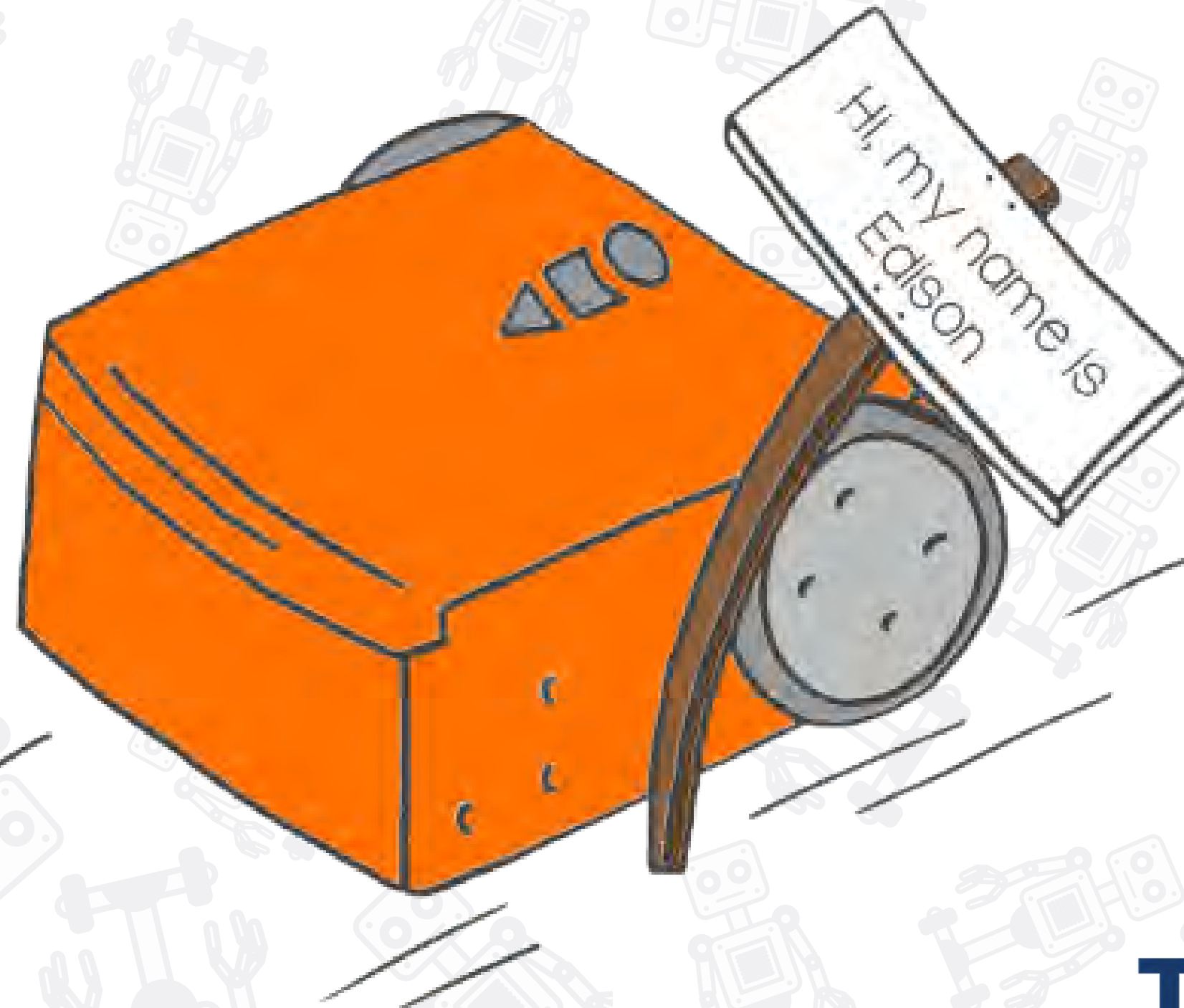


# Coding - Edison Robotics



# 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?

# What is a Robot?



# Who is Edison?

- Edison is a programmable robot.
- Programmable means we can tell Edison what to do - or program it.
- We can program Edison to do a lot of different things.
- We can program Edison different ways.



# Who is Edison?

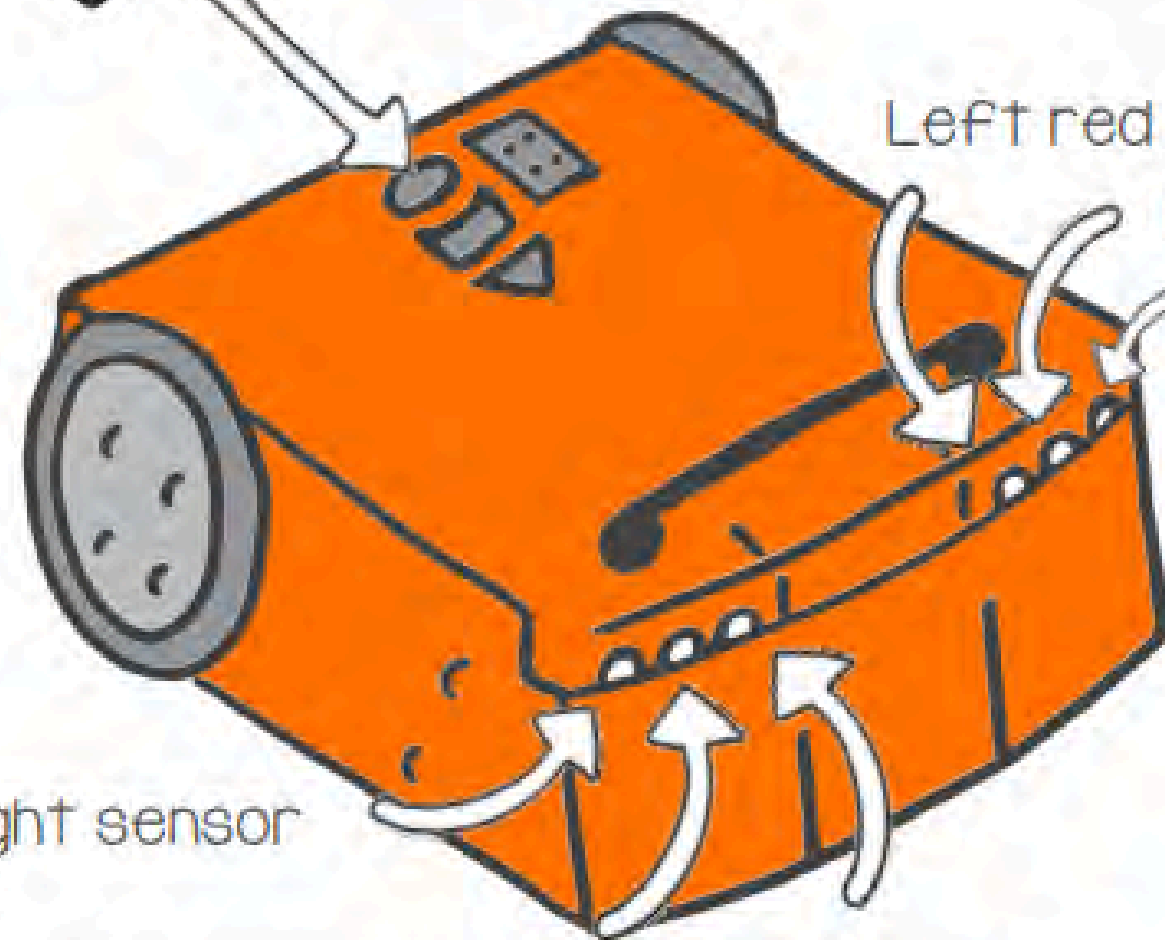


Record button

Stop button

Play button

This is the top of Edison



Left red LED

Left infrared LED

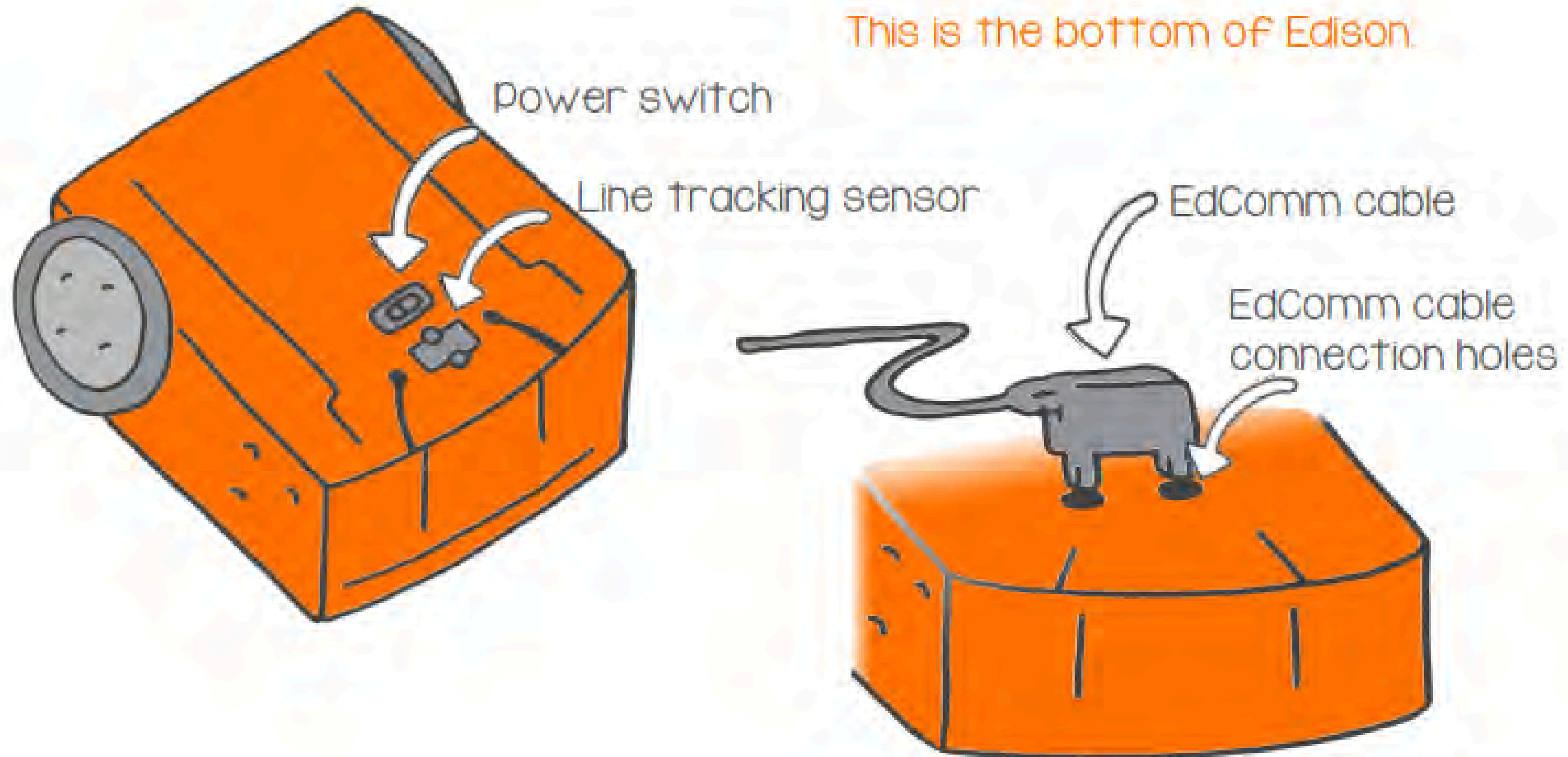
Left light sensor

Right light sensor

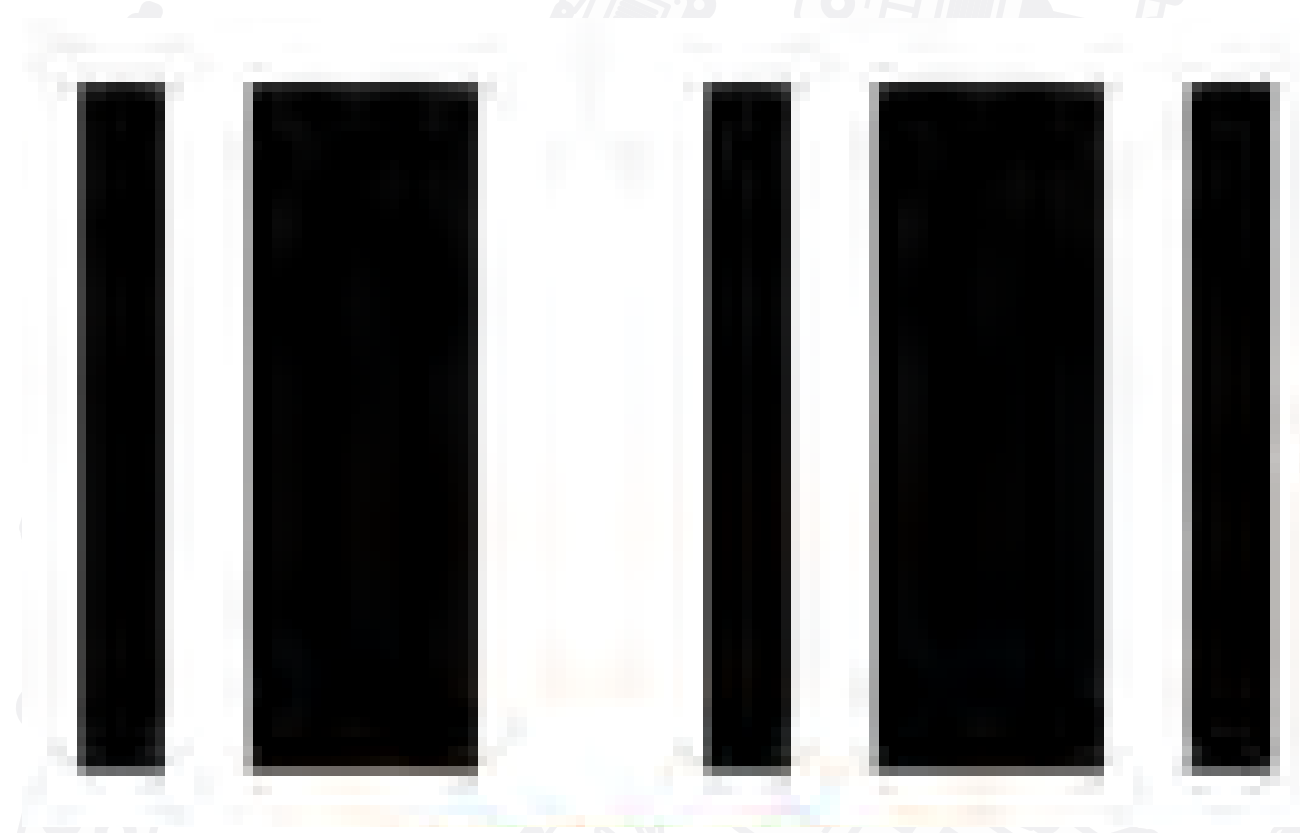
Right infrared LED

Right red LED

# Who is Edison?

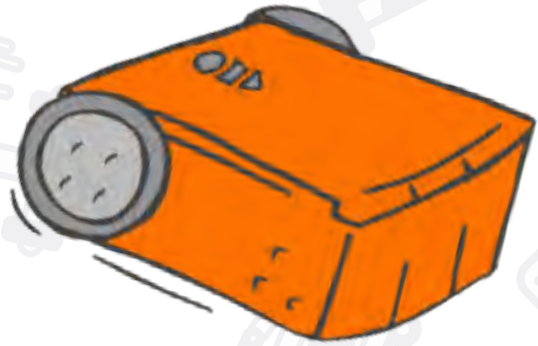


# Programming Edison



**BARCODES**

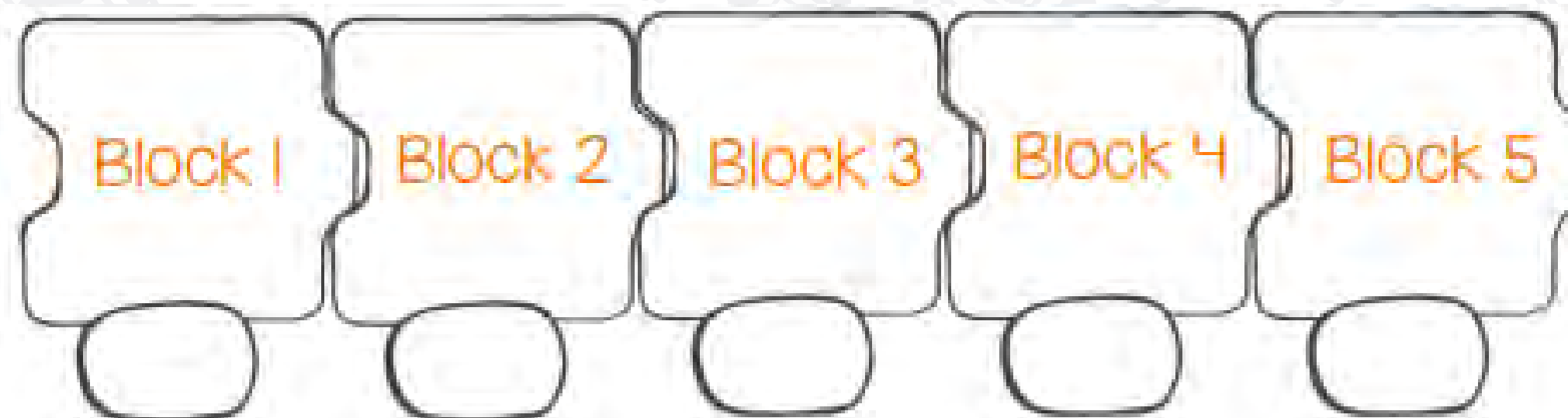
# Programming Edison



**COMPUTERS**

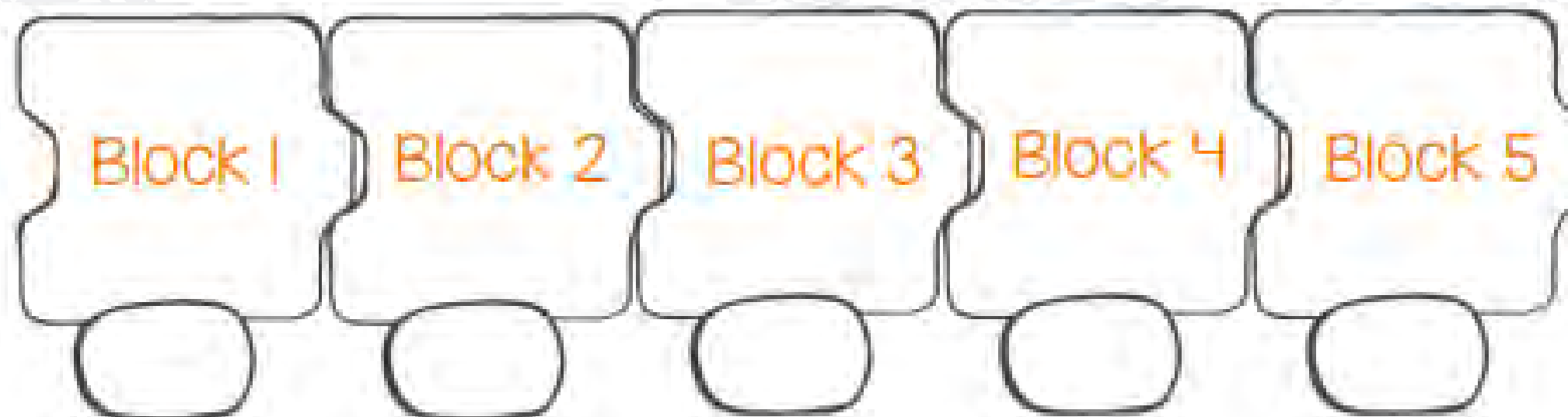
# Using EdBlocks

- EdBlocks is a robot programming language we can use to code Edison.
- Edison follows steps one by one, using EdBlocks.
- You create the program or code Edison will follow.
- You determine the outcome and create the steps Edison will follow to achieve that outcome.



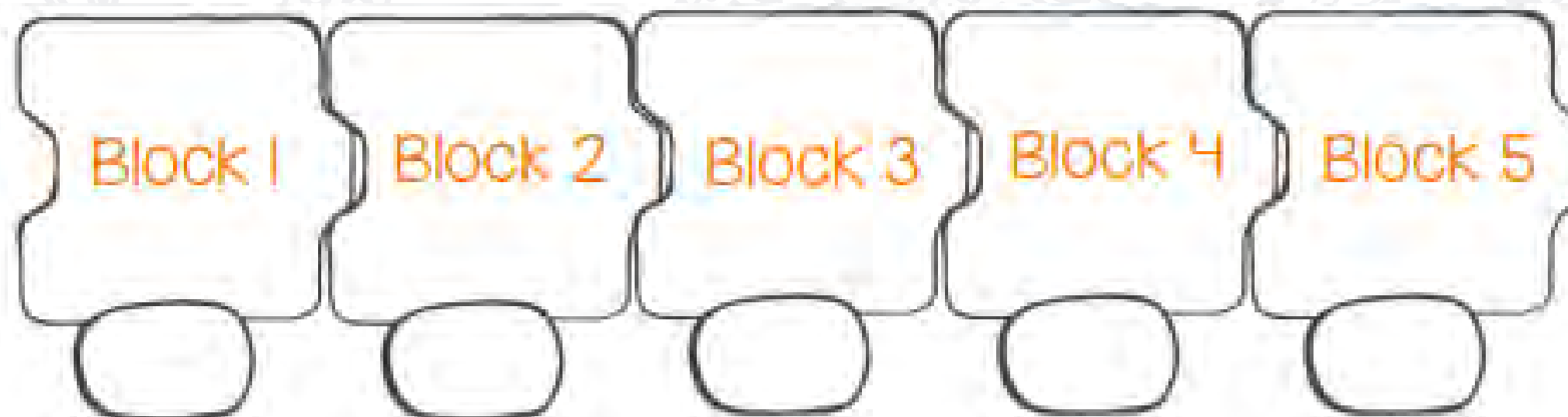
# Using EdBlocks

EdBlocks - icon-based robot programming language for the Edison robot



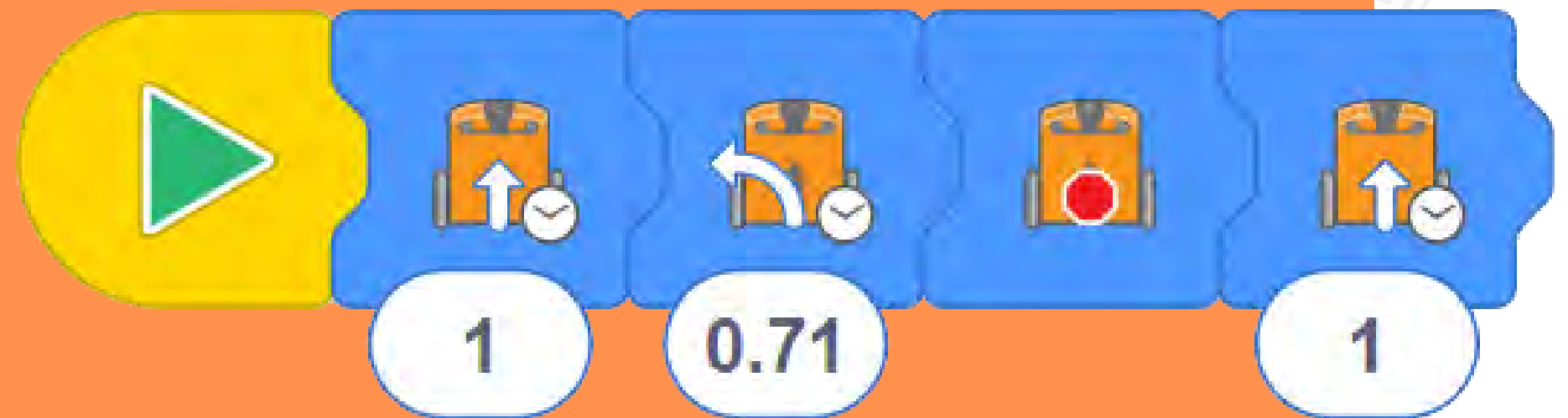
# Coding with EdBlocks

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



# Coding with EdBlocks

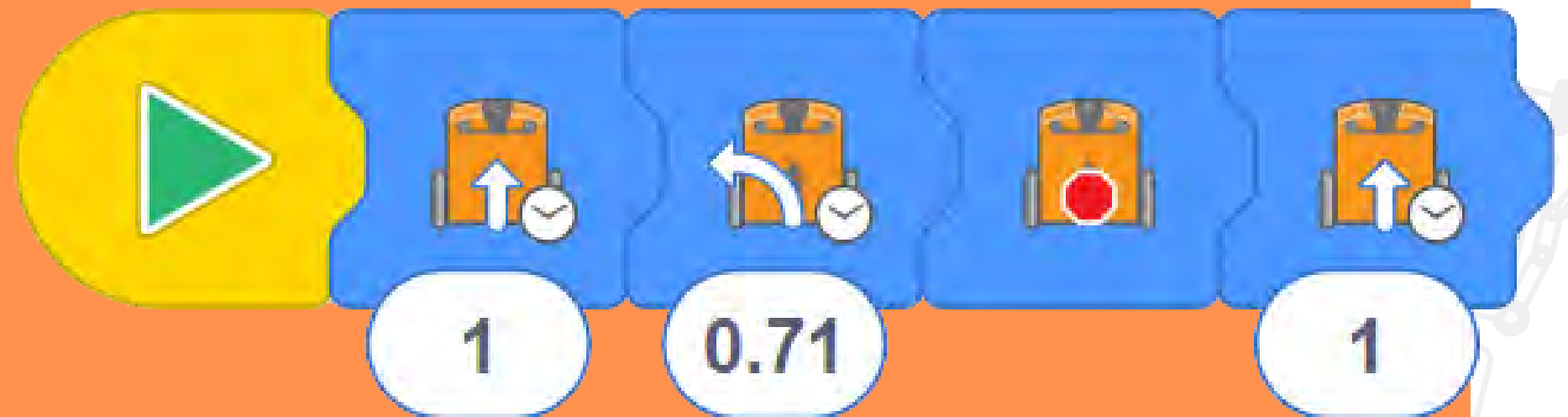
- Under the MENU tab, select:
  - Load Demos
  - Drive example
- Program Edison
  - Connect cable to Edison
  - Turn up volume on computer
  - Press record ONCE
  - Click Program Edison



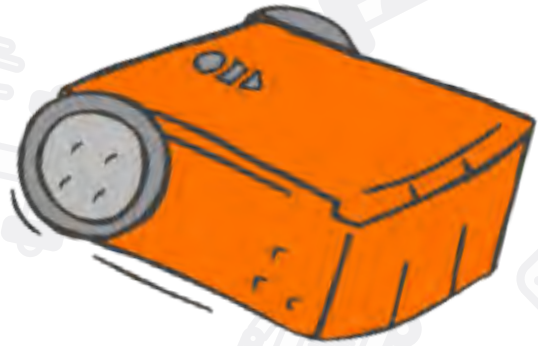
# Coding with EdBlocks

- Block Types

- Drive
- Outputs
- Wait Until
- Control
- Start Events



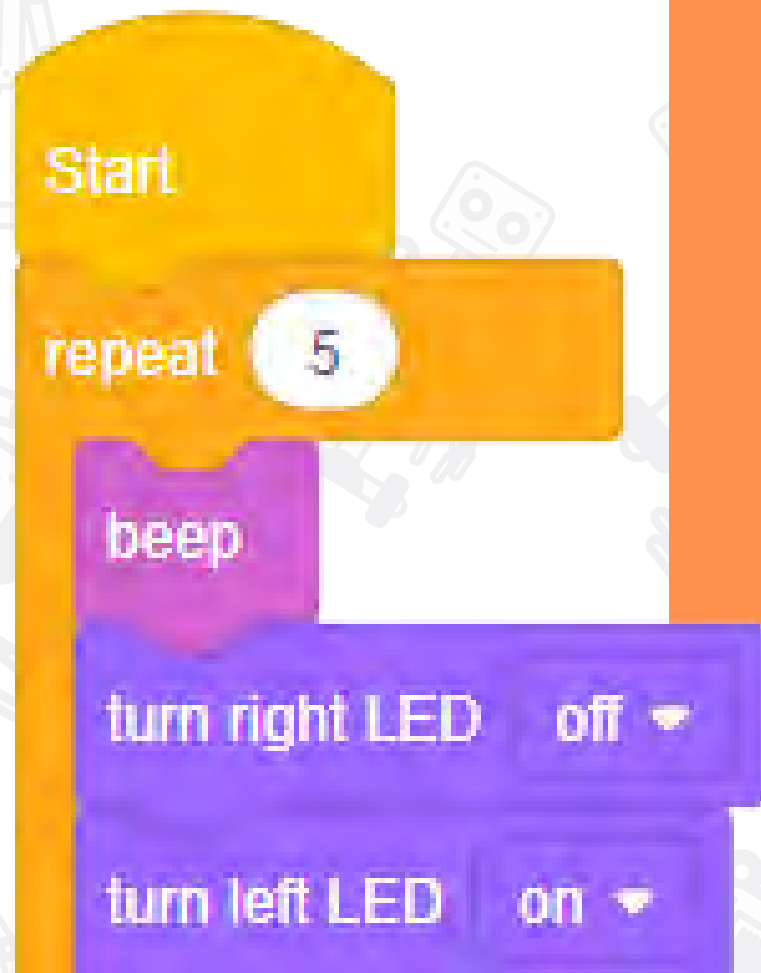
# Programming Edison



**COMPUTERS**

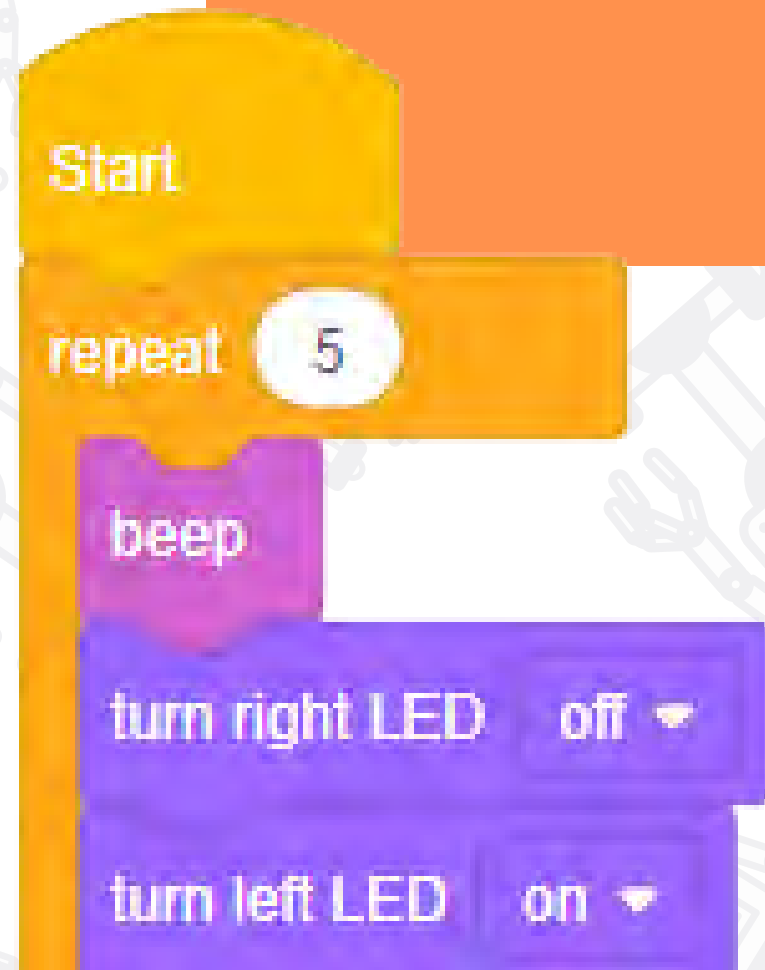
# Using EdScratch

- EdScratch is a vertical block-based robot coding language we can use to code Edison.
- Edison follows steps one by one, using EdScratch, to complete various actions.
- You create the program or code Edison will follow.
- You determine the outcome and create the steps Edison will follow to achieve that outcome.



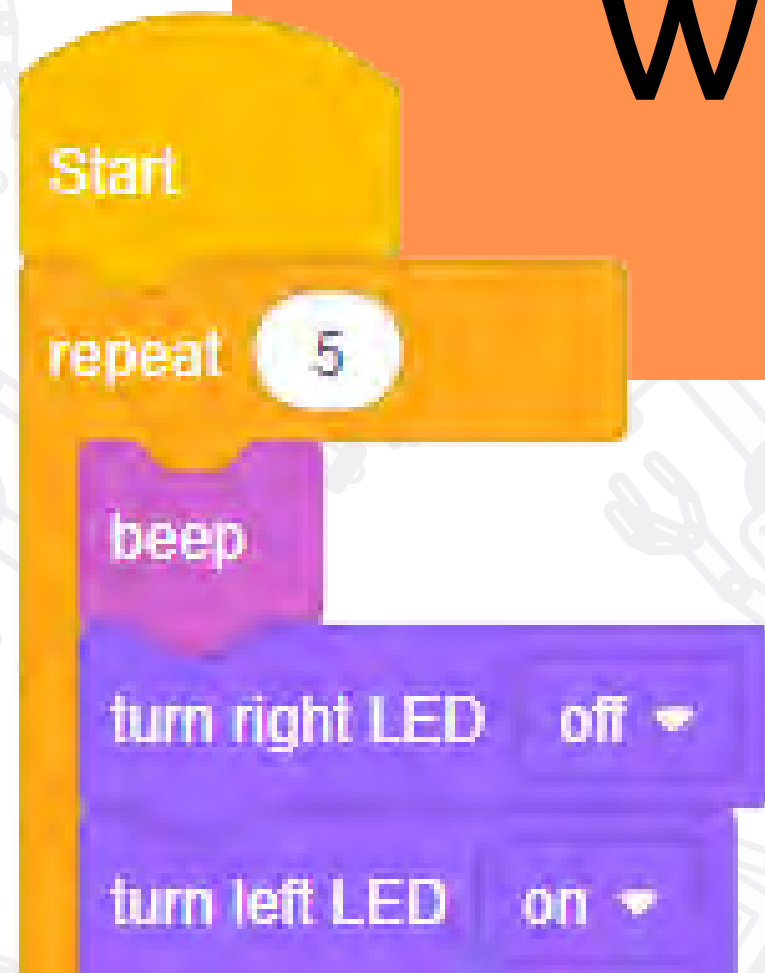
# Coding with EdScratch

EdScratch – Scratch-based programming language for the Edison robot



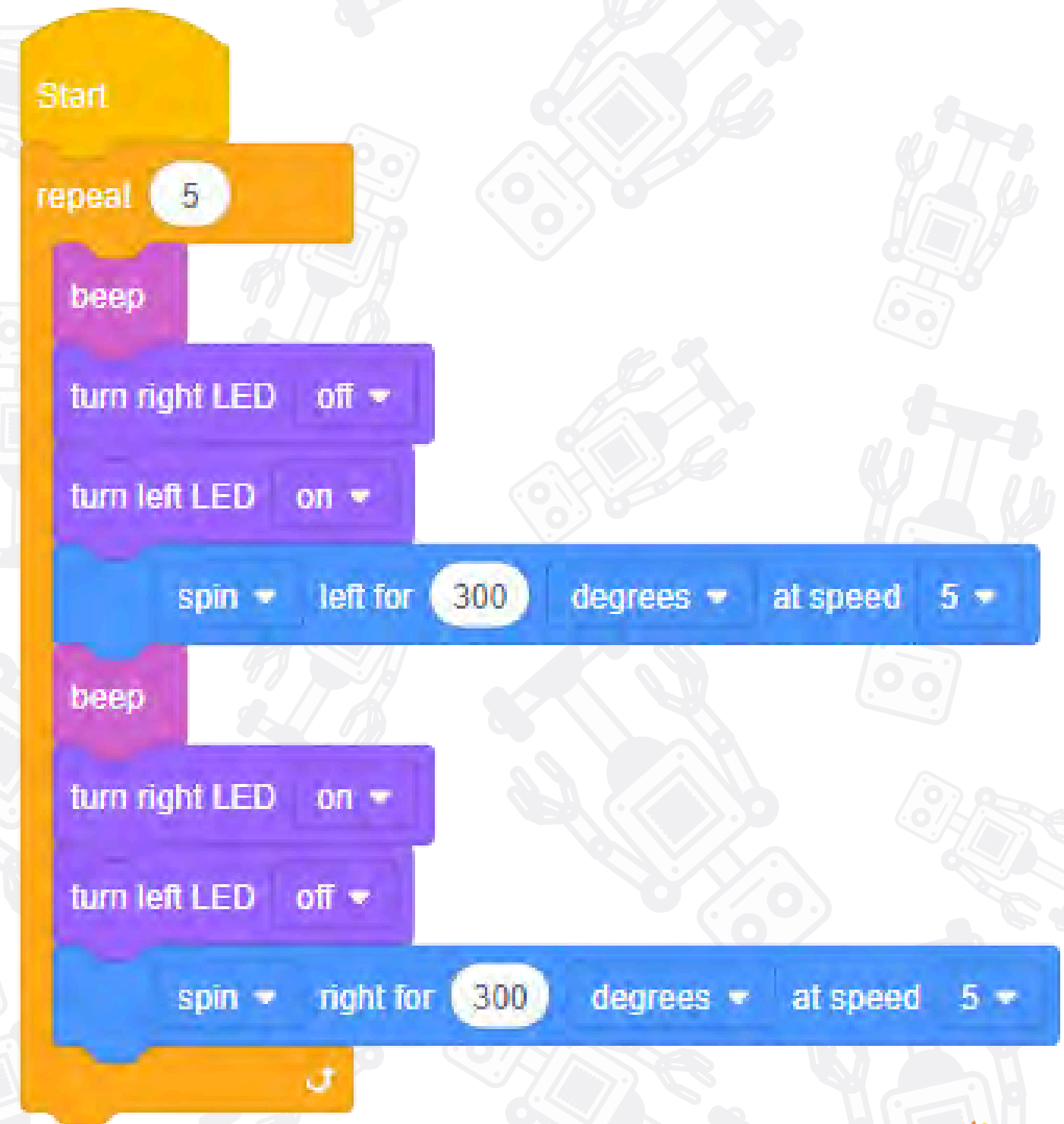
# Coding with EdScratch

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



# Coding with EdScratch

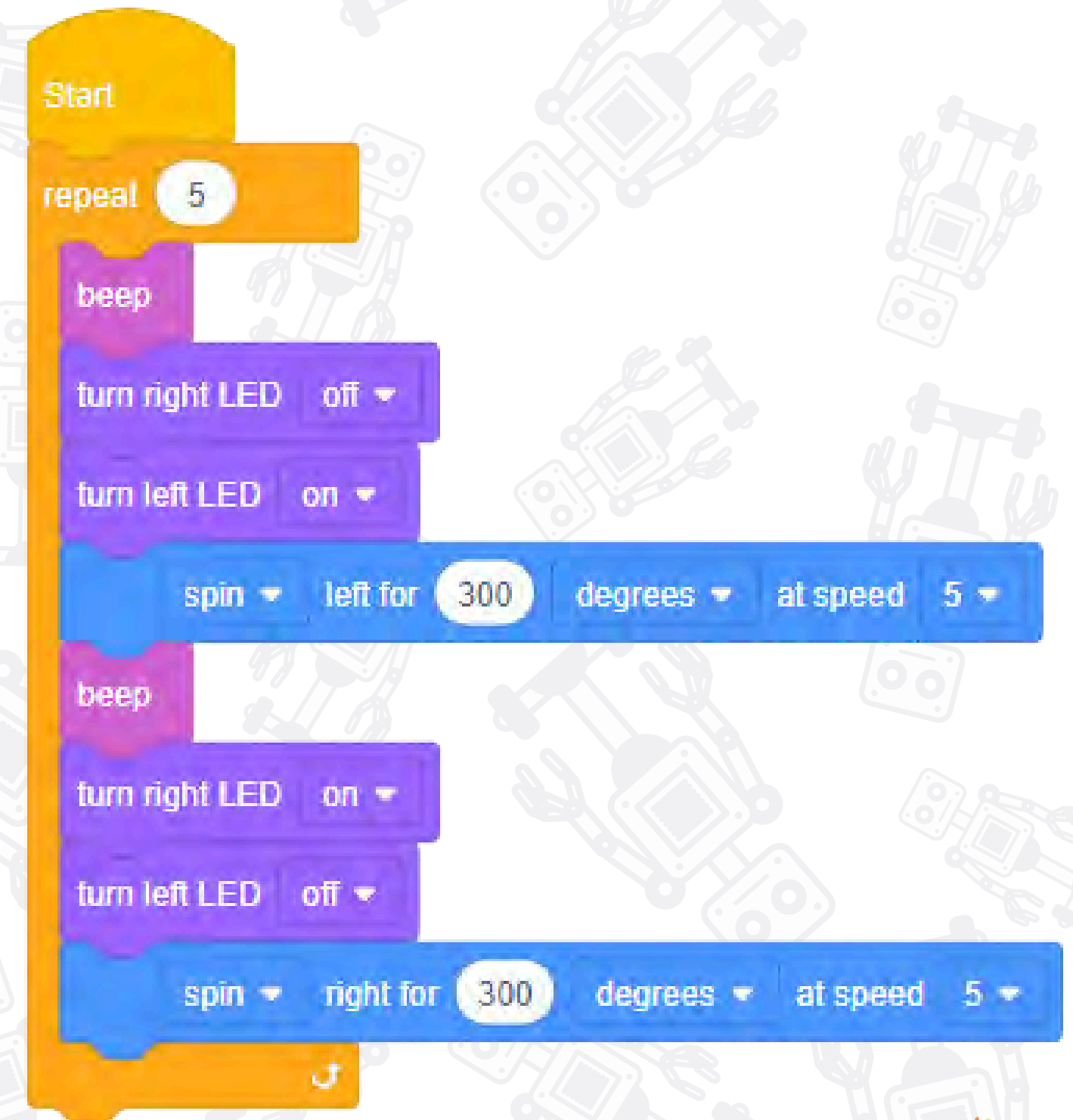
- Under the MENU tab, select:
  - Load Demos
  - Test Program
- Program Edison
  - Connect cable to Edison
  - Turn up volume on computer
  - Press record ONCE
  - Click Program Edison



# Coding with EdScratch

- Block Types
  - Drive
  - LEDs
  - Sound
  - Data\*
  - Events
  - Control
  - Sensing\*
  - Operators\*
  - Comment

*\*avoid these block types during coding*



# Edison Robotics

Outcome

Code

Algorithm

Creativity

Loops

Instructions

Design

Collaboration

