

## LESSON 6

# Build your Move Motor Sensor Car

60 minutes (2 periods)

Building Basic Robotic Systems

### WHAT THIS LESSON DOES

Unpack your Move Motor Sensor Car kit and lay out the contents. Follow the step-by-step instructions in the yellow booklet to assemble the car, connect to Makecode, add the Move Motor Extension, and code the motors. Explore the buzzer, Zip LEDs, line following sensors, and the distance sensor. Once built, experiment with different movements and LED uses.

### WHAT STUDENTS SHOULD BE ABLE TO DO

- Develop practical skills in assembling a Move Motor Sensor Car.
- Understand how to connect the Move Motor Sensor Car to Makecode.
- Acquire coding skills for controlling the motors, buzzer, and LEDs of the Move Motor Sensor Car.
- Learn to utilise the line following and distance sensors for navigation.
- Encourage exploration and creativity in coding for different movements and LED usage.

### BEFORE THE BELL

- Ensure all materials are ready, including the Microbit and 4 AA batteries. Guide students through the step-by-step instructions provided in the yellow booklet, ensuring they understand each stage of assembly, connection to Makecode, and adding the Move Motor Extension. Facilitate their understanding of coding the motors, using the buzzer, Zip LEDs, line following sensors, and the distance sensor. Encourage exploration and experimentation once the Move Motor Sensor Car is built.

# Build your Move Motor Sensor Car

| HOW THE LESSON RUNS           |
|-------------------------------|
| Open the package              |
| Follow the instructions       |
| Assembling: Move Motor        |
| Getting Connected to Makecode |
| Add in :Move Motor Extension  |
| Coding the Motors             |
| The Buzzer                    |
| The Zip LEDs                  |
| The Line Following Sensors    |
| The Distance Sensor           |
| Explore                       |