

LESSON 12

Attach the Move Motor Klaw

30 minutes

Integration Projects

WHAT THIS LESSON DOES

In this step-by-step lesson, you'll need an adult's assistance to build your Move Motor Sensor Car. Begin by opening your package and laying out the contents, including a Microbit, Move Motor Car, 4 AA batteries, and a small Phillips head screwdriver. Follow the provided instructions to construct and attach the Move Motor Klaw to your car.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Develop the ability to follow complex instructions with adult supervision.
- Understand the process of unpacking and organising components for assembly.
- Gain practical skills in using tools such as a small Phillips head screwdriver.
- Learn to assemble the Move Motor Klaw and attach it to the Move Motor Car.
- Understand the flexibility of design in attaching the Klaw either vertically or horizontally.

BEFORE THE BELL

- Count Move Motor Klaw packages against class size the day before. Check each pack is complete.
- Confirm each group has a built Move Motor Car, a micro:bit, and 4 AA batteries that fit and work.
- Set out small Phillips head screwdrivers (enough to share). Test one yourself so you know the tight or fiddly steps.
- Have one klaw already assembled to show vertical and horizontal attachment.

Attach the Move Motor Klaw

HOW THE LESSON RUNS

Introduction

Open the package

Follow the instructions

TEACHING MOVES

- 1. Introduction. Show your pre-built klaw on a car. Say assembly needs care and adult help for tight screws. Students ask before forcing any part.
- 2. Open the package. Have groups empty the pack onto the table and sort parts before building. Call out car, micro:bit, batteries, and screwdriver so nothing is missing mid-build.
- 3. Follow the instructions. Point them to the booklet only. Circulate: help grip and alignment, do not build for them. Vertical or horizontal is their design choice.

WHAT TO WATCH FOR

- Students force parts together or over-tighten screws when a piece will not seat. Stop the build. Check the booklet step and part orientation. Loosen, reseal, then snug the screw without forcing.
- Students treat vertical and horizontal mounting as one correct answer rather than a choice. Show both on your demo car. Ask what they want the klaw to pick up, then let them pick the mount that fits.
- Groups start screwing before all parts are laid out and matched to the booklet. Pause the class. Every group checks parts against the booklet diagram, then continues from the first unmatched step.

DIFFERENTIATION

- Emerging: Pair them with a group that has parts laid out correctly. Sit in for the first screwdriver step, then step back. Give the pre-built demo klaw to hold so they can match part shapes before fitting their own.
- Developing: Ask them to show the next booklet step and name the part before they pick up the screwdriver. Check screw alignment once, then have them finish that joint themselves.
- Proficient: When their klaw is on, have them try the other mount orientation and say which suits which task. Send them to coach another group on layout and screw technique, without taking over the build.