KIDS FIRST

ANDY
The Code & Play Robot

Hello!
Play with me
and learn!

Program
me using the
buttons on my head

THAMES & KOSMOS

⚠ **WARNING:**
CHOKING HAZARD — Small parts.
Not for children under 3 yrs.

What's inside your experiment kit

Allow me to introduce myself ...
I am Andy, your new robot!

1

2
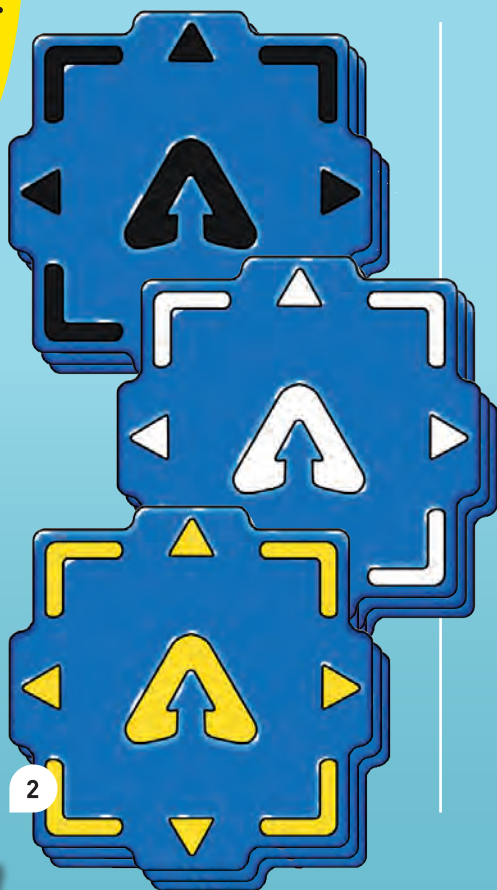
Checklist:

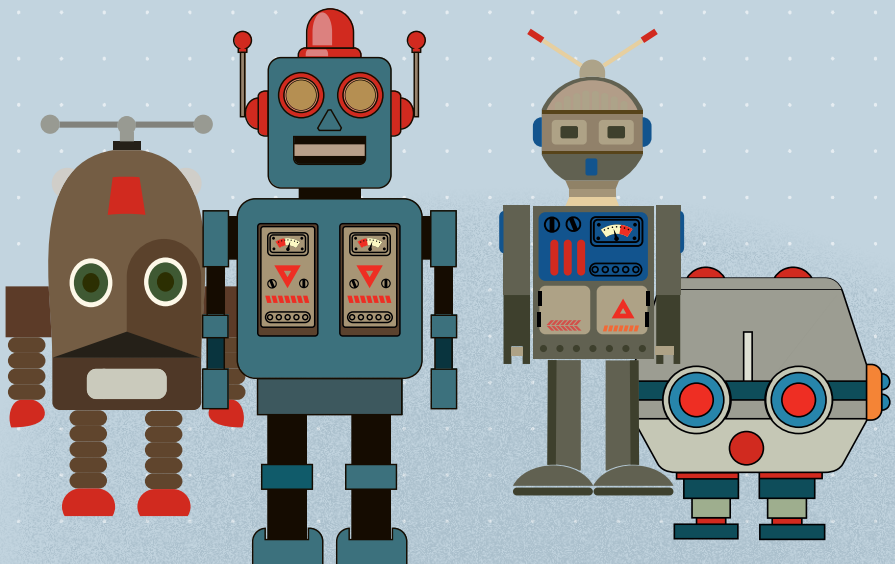| ✓	No.	Description	Quantity	Part No.
○	1	Andy	1	725644
○	2	Robot card	9	725646

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⭐ TIP

ADDITIONAL INFORMATION CAN BE FOUND IN THE **CHECK IT OUT** SECTIONS ON PAGES 8 AND 9.
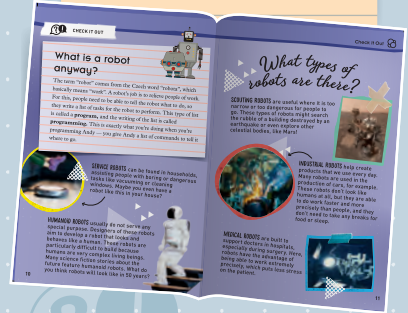
ⓘ **YOU WILL ALSO NEED:**

3 AA batteries (1.5-volt, type LR6), small Phillips-head screwdriver

1

WARNING !!

Not suitable for children under 3 years. Choking hazard — small parts may be swallowed or inhaled.

Store the experiment material and assembled models out of the reach of small children.

Keep packaging and instructions as they contain important information.

NOTES ON DISPOSAL OF ELECTRICAL AND ELECTRONIC COMPONENTS

The electronic components of this product are recyclable. For the sake of the environment, do not throw them into the household trash at the end of their lifespan. They must be delivered to a collection location for electronic waste, as indicated by the following symbol:

Please contact your local authorities for the appropriate disposal location.

SAFETY FOR EXPERIMENTS WITH BATTERIES

→ To operate the models, you will need three AA batteries (1.5-volt, type LR6), which could not be included in the kit due to their limited shelf life.
→ An adult should insert and change the batteries. For instructions on how to insert and change the batteries, see page 5.
→ Avoid a short circuit of the battery. A short circuit can cause the wires to overheat and the battery to explode.
→ Different types of batteries or new and used batteries are not to be mixed.
→ Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries.
→ The battery is to be inserted with the correct polarity (+ and -). See page 5.
→ Always close battery compartment with the lid and tighten the screw to close the cover.

→ Non-rechargeable batteries are not to be recharged. They could explode!
→ Rechargeable batteries are only to be charged under adult supervision.
→ Rechargeable batteries are to be removed from the toy before being charged.
→ Exhausted batteries are to be removed from the toy.
→ Dispose of used batteries in accordance with environmental provisions, not in the household trash.
→ Be sure not to bring batteries into contact with coins, keys, or other metal objects.
→ Avoid deforming the batteries.
→ Always operate under adult supervision.
→ After you are done experimenting, remove the battery from the battery compartment.

CARE AND MAINTENANCE

› Replace the batteries if the power decreases.
› After you are done experimenting, remove the batteries from the battery compartments.
› Check regularly that the plugs and other parts are not damaged. In case of deterioration, do not use the product until it has been repaired.
› To clean, wipe the toy gently with a clean dry cloth.
› If Andy does not respond, reset it (turn it off and on again)

› Do not submerge Andy in water as it can damage the electronic assemblies.
› To protect the electrical and mechanical components, we recommend that Andy is only operated indoors.
› Avoid contact with metal objects and liquids.
› Keep Andy away from direct heat.

# Dear Parents and Supervising Adults,

Children want to be amazed, understand, and create new things. They want to try everything out and do it for themselves. They want to know! They can do all of this with Thames & Kosmos experiment kits. We hope you and your child have a lot of fun experimenting with Andy!

— Before building and experimenting, read the instructions with your child and discuss the safety information together. Stand by to assist your child with any challenging steps of assembly or usage.

— If your child is working on a table, give them something to work on to prevent damage to the furniture.

I am a robot for kids ages 5 and up
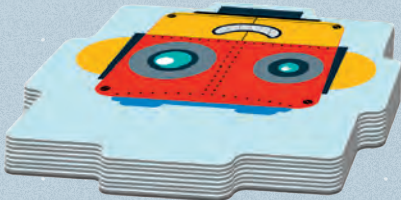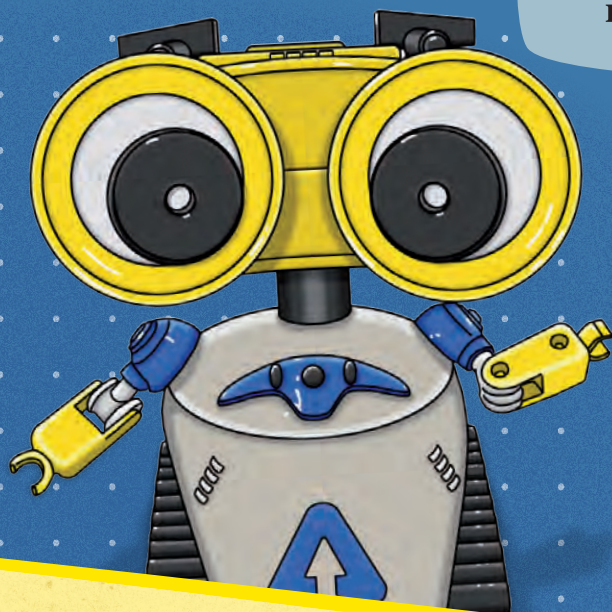
Getting started with Andy!

Before you start coding with Andy, there are a few important things to keep in mind. On the next page, learn how to install the batteries and turn Andy's power on.
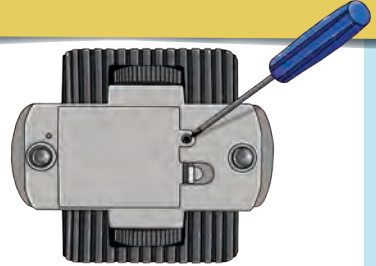
## INSERTING AND REMOVING THE BATTERIES

! Inserting and removing batteries should always be done by an adult.

1. Use a small Phillips-head screwdriver to open the battery compartment on the bottom of Andy.

2. Insert three AA batteries (1.5-volt, type LR6). Make sure that the polarity is correct, as shown in the image.

3. Replace the battery cover and tighten the screw with the screwdriver to secure it in place.
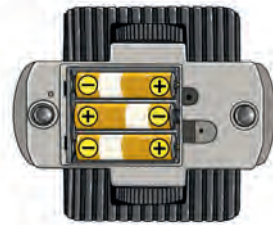
4. To remove or replace the batteries, follow steps 1 – 3 above.

POWER ON AND SELECT DRIVING DISTANCE

Turn Andy's power on by moving the slider on its back to the right.

If you move the slider to the middle (position I), Andy will move 15 cm (approx. 6 inches) every time you press an arrow button.

If you move the slider all the way to the right (position II), Andy will move to 30 cm (approx. 12 inches) every time you press an arrow button.

Code & Play!

> Now that the batteries are installed and you know how to power your robot on and off, it's time to start learning Andy's functions!

BUTTON FUNCTIONS

STOP
No matter what Andy is doing, if you press this button, it will stop.

PAUSE
When you press this button, Andy pauses and makes a fun sound.

ARROW KEYS
These buttons determine the direction of Andy's movements: Forward, backward, turn left, turn right.

GO BUTTON
Use the GO button to switch between functions or start a programmed function.

PLAY MODES

FREE-PLAY MODE
When you switch Andy on, it is automatically in this mode. If you press one of the arrow keys, Andy will move in that direction.

PROGRAMMING MODE
If you press the GO button once, Andy switches to programming mode. Now you can create a program for Andy by pressing the arrow keys or pause button in a sequence one after the other.

After you have pressed all of the buttons you want, press the GO button again to save the program. Andy will then perform the movements you have selected. When you want to clear that program, press the stop button. Then you can enter a new program.
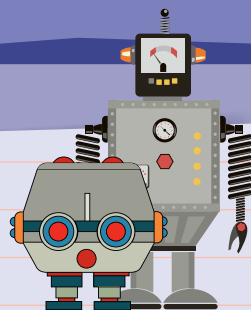
DANCING MODE
If you press the GO button three times in a row, Andy will play music and dance!
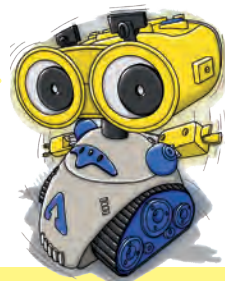
What is a robot anyway?

The term "robot" comes from the Czech word "robota", which basically means "work". A robot's job is to relieve people of work. For this, people need to be able to tell the robot what to do, so they write a list of tasks for the robot to perform. This type of list is called a **program,** and the writing of the list is called **programming.** This is exactly what you're doing when you're programming Andy — you give Andy a list of commands to tell it where to go.

SERVICE ROBOTS can be found in households, assisting people with boring or dangerous tasks like vacuuming or cleaning windows. Maybe you even have a robot like this in your house?

HUMANOID ROBOTS usually do not serve any special purpose. Designers of these robots aim to develop a robot that looks and behaves like a human. These robots are particularly difficult to build because humans are very complex living beings. Many science fiction stories about the future feature humanoid robots. What do you think robots will look like in 50 years?

What types of robots are there?

SCOUTING ROBOTS are useful where it is too narrow or too dangerous for people to go. These types of robots might search the rubble of a building destroyed by an earthquake or even explore other celestial bodies, like Mars!

INDUSTRIAL ROBOTS help create products that we use every day. Many robots are used in the production of cars, for example. These robots don't look like humans at all, but they are able to do work faster and more precisely than people, and they don't need to take any breaks for food or sleep.
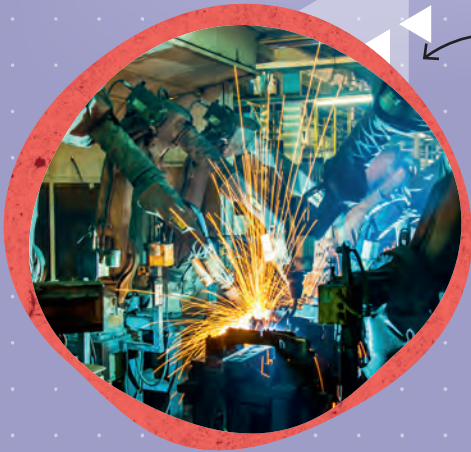
MEDICAL ROBOTS are built to support doctors in hospitals, especially during surgery. Here, robots have the advantage of being able to work extremely precisely, which puts less stress on the patient.
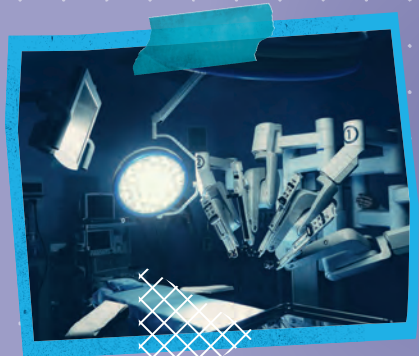
Game:
Andy & Friends!

> Now that you are comfortable with Andy's functions and have had a little bit of experience with programming, you are ready to play a fun robot game!

GAME: ANDY & FRIENDS

The goal of this game is to program Andy to find its robot friends. Your kit contains a total of nine robot cards. On the front side of each card is a certain part of a robot: head, torso, or legs. There are three of each type of card, so Andy can collect 27 different robot friends in all (see back cover).

HOW TO PLAY

1. Shuffle the cards and choose one of each type of card. (black, yellow, and blue). Lay these cards face down on a surface. Choose a fourth card as a starting point for Andy.

legs   torso   head

2. Use another card to accurately measure the distances between the cards. Each card is 15 cm, which is the distance Andy travels in each move.

3. Move the switch to the middle (position I), then press the GO button to enter a program. Press the buttons to program the necessary moves for Andy to move to the three parts of its robot friend. Andy must pause on a card in order to "find" it, so make sure you use the pause button when setting Andy's program.

4. Press the GO button again. Andy will perform the actions that you programmed. Flip the cards that Andy finds. That is Andy's new robot friend!

★TIP

ONCE YOU GET REALLY GOOD AT THE GAME, YOU CAN INCREASE THE CHALLENGE BY TRYING TO FIND THE ROBOT PARTS IN A PARTICULAR ORDER (EX. FEET, TORSO, HEAD).

OR TRY TO GATHER TWO OR THREE ROBOT FRIENDS AT ONCE!
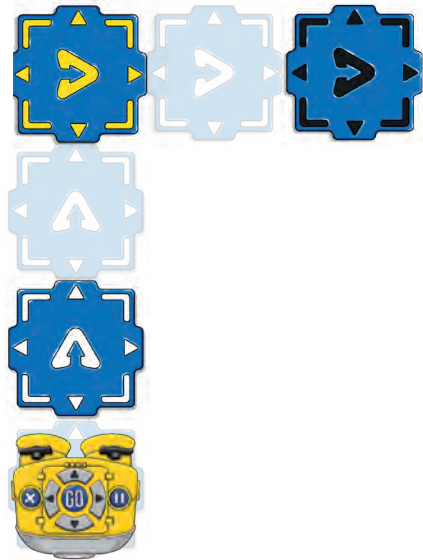
GO ▲ II ▲ ▲ II ▶ ▲ ▲ II GO

This is the program that Andy would need to use to find his robot friend in the example above.

5. Turn to the back cover to check off the robot pal Andy just found. Repeat steps 1 – 5 to collect all 27 friends.

FOODS AND ANIMALS

When you have found all of your robot friends, you can ask your parent or caregiver to download more games from the Thames & Kosmos website. They can scan this QR code with their smartphone camera.
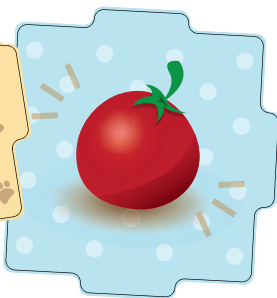
OBSTACLE COURSE

Set up an obstacle course for Andy in your room with books or other objects. Lay a piece of paper or string on the floor as a finish line. Then create a program for Andy to navigate the course. How many tries did you need to successfully bring Andy to the finish line?

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Check off the boxes of the friends that Andy finds.

Gabi ☐

Nelly ☐

Anna ☐

Bob ☐

Alex ☐

Mari ☐

Henry ☐

William ☐

Helen ☐

Sarah ☐

David ☐

Theresa ☐

Susan ☐

Juliet ☐

Victor ☐

Josh ☐

Erik ☐

Sandra ☐

Xavier ☐

Rachel ☐

Paul ☐

Diana ☐

Sandra ☐

Daniella ☐

John ☐

Manuel ☐

MJ ☐