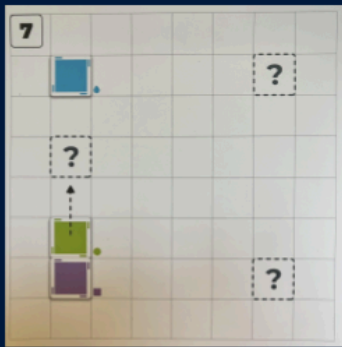


Low Carbon Technology

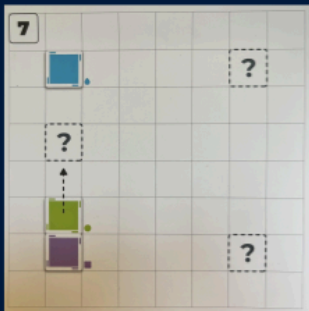
Your task:

Imagine the Indi robot is an EV taking an engineer to install low carbon tech in a customer's home.

Code the EV to get from the green square to the house where the engineer has a job booked (the purple or trophy square). Fix the bugs along the way to find the missing colours and enable the engine to get to their job. Try to keep your journey short to save on power!

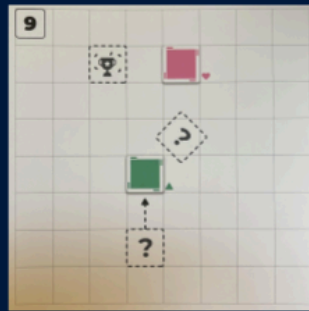


Your task:



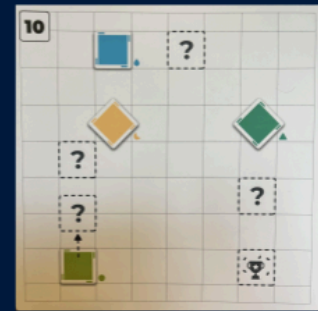
Job 1: Code the robot to get to the purple square to install an EV charger for the customer.

Answer Q1: How can I make sure that my EV is charged when I need it?



Job 2: Code the robot to get to the trophy square to install a smart meter for the customer.

Answer Q2: Why are smart meters useful?



Job 3: Code the robot to get to the trophy square to install solar panels for the customer.

Answer Q3 :Would it be worth having a battery installed with solar panels? Why or why not?

Animal Conservation

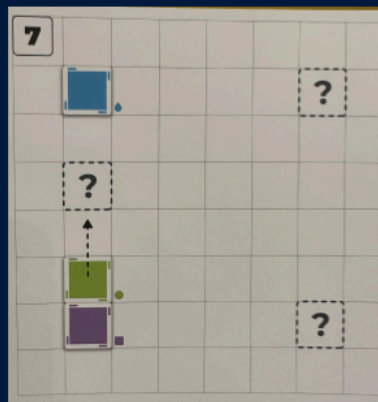
Sphero Indi – Programming the robot



We've just seen a few of the ways that drones and robots can be used to help the planet. You're now going to have a go at programming the Sphero Indi, which is a colour sensing robot.

- Your group has a set of coloured mats. Each different colour is a different instruction for the robot.
- Work as a team and find out what instruction each colour gives to the robot.

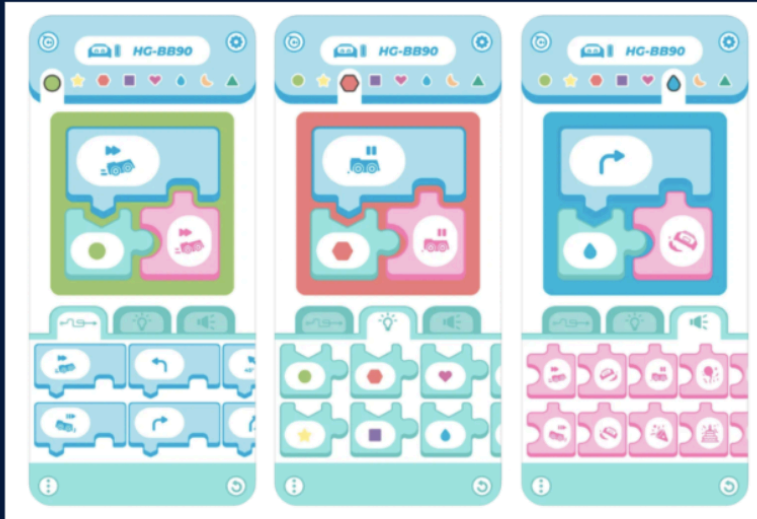
Sphero Challenge – Rescue the Koala



Challenge: Can you add the correct colour mats to the '?' spaces and complete the program so that the robot can rescue the koala from the bushfire?

Creating music

Sphero Challenge – Making music



We're now going to use the Indis to make music. We're going to change one of the instructions so that we can play a tune!

1. Select the green circle on the top line of shapes.
2. Select the sound icon on the tabs.
3. Drag and drop the pink music box icon onto the bottom right jigsaw piece. Make sure 'Twinkle Twinkle' is selected.
4. Repeat for every shape.

Sphero Challenge – Making music



Twinkle, Twinkle, little star,
How I wonder what you are!
Up above the world so high,
Like a diamond in the sky.
Twinkle, Twinkle, little star,
How I wonder what you are!

Challenge:

- Use the mats to program the Sphero indi to play the first two lines of 'Twinkle, Twinkle Little Star'.
*Twinkle, Twinkle, little star,
How I wonder what you are!*
- Think about the tempo of the song, and the spacing of your mats carefully.
- Program a few notes at a time then use the indi to check before moving on to the next few notes.
- If you finish the first two lines, try the next two.

Tempo: The speed at which a piece of music should be played.

Supply Chain Risk Management for a trainer company



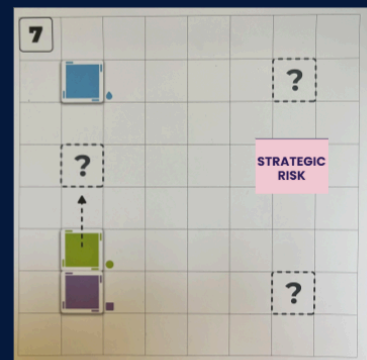
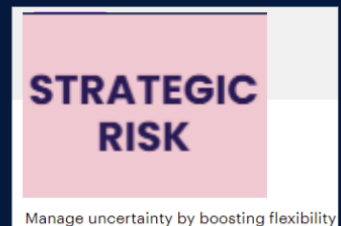
Tech session 2 - Supporting a new business

Strategic Risk

You are about to start selling a new pair of trainers. You want to order 1000 pairs of Trainers to have in your warehouse ready to post when a customer orders them. The manufacturer cannot make 1000 pairs by your deadline.

Programme the Indi around this problem.

How could you overcome this problem?



Tech session 2 - Supporting a new business

Tactical Risk

A famous Tik Tok creator just wore your trainers and now you do not have enough stock to meet the increase in demand to buy them on your website.

Navigate the Indi Robot around the tactical risk.

How could you solve this problem?

