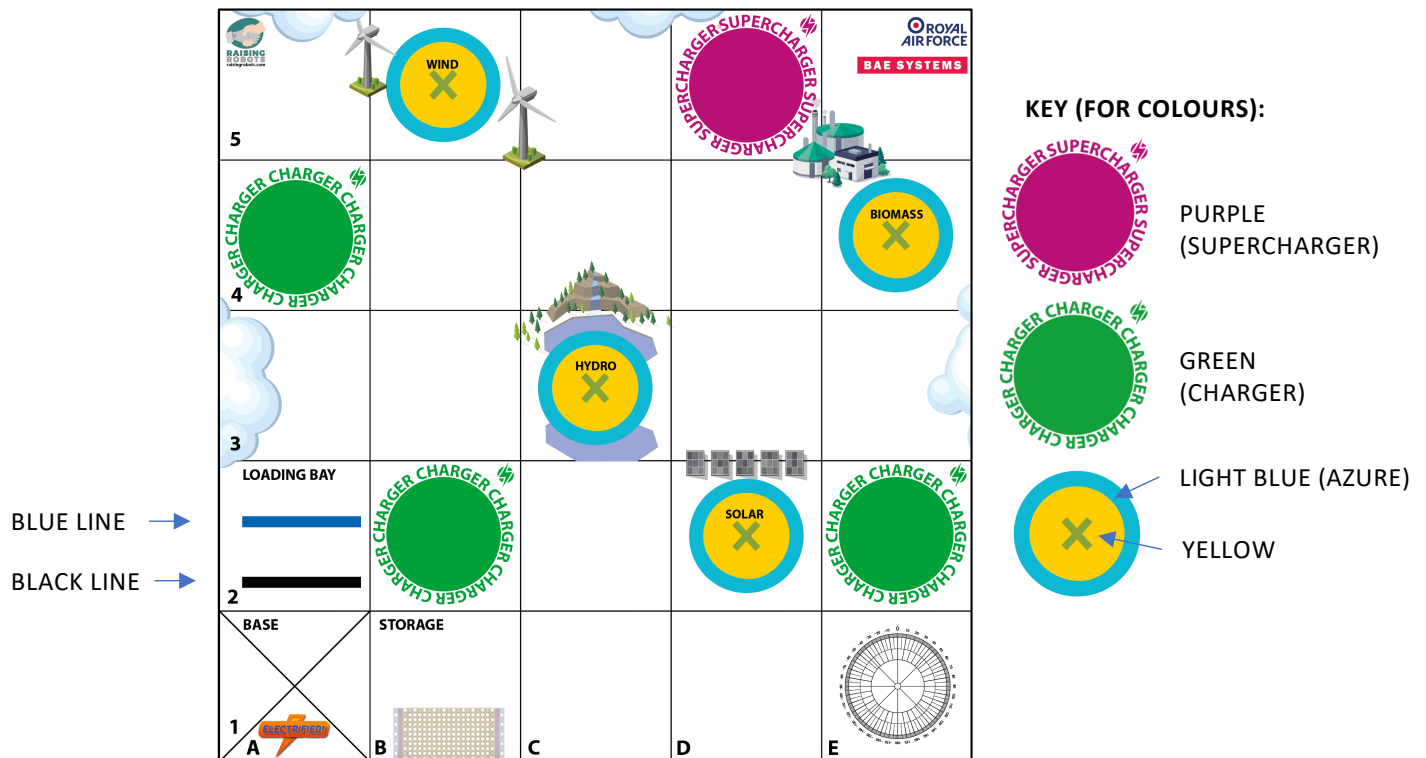


MISSION 3: On The Move!

Deliver and Relocate

Outline of Mission 3:

It's time to code your SPIKE Prime EV to deliver a wind turbine, a biomass container, a solar panel and a hydro turbine to key locations! Your EV will need to be precise and accurate so let's code the SPIKE Prime Colour Sensor to help with this...



CHALLENGE A

SENSOR PICK UP!

You need to:

Create a program named: **M3A**
STARTING AT BASE (A1), design the program to:

Using the Colour Sensor, **MOVE** your EV to the **BLACK LINE** in **A2** and pick up the **SOLAR PANEL**.

Return to **BASE (A1)**

CHALLENGE B

DELIVER SOLAR!

You need to:

Create a program named: **M3B**
STARTING AT BASE (A1), design the program to:

Using the Colour Sensor, **MOVE** your EV to the **BLACK LINE** in **A2** and pick up the **SOLAR PANEL**. **MOVE** to the **BLUE LINE** in **A2** and then deliver the **SOLAR PANEL** to **SOLAR (D2)** using the Colour Sensor.
Return to **BASE (A1)**

Developed in partnership with

CHALLENGE C

STORE BIOMASS!

You need to:

Create a program named: **M3C**
STARTING AT BASE (A1), design the program to:

Using the Colour Sensor, **MOVE** your EV to the **BLACK LINE** in **A2** and pick up the **BIOMASS**.

MOVE to the **BLUE LINE** in **A2** and then deliver **BIOMASS** to the top of the **STORAGE SHELF (B1)**.

Return to **BASE (A1)**

CHALLENGE D

DELIVER BIOMASS!

You need to:

Create a program named: **M3D**
STARTING AT BASE (A1), design the program to:

Pick up the **BIOMASS** from the top of the **STORAGE SHELF (B1)** and then deliver it to **BIOMASS (E4)** using the Colour Sensor.
Return to **BASE (A1)**

CHALLENGE E

DELIVER WIND TURBINE!

You need to:

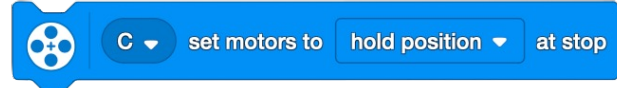
Create a program named: **M3E**
STARTING AT BASE (A1), design the program to:

Using the Colour Sensor, **MOVE** your EV to the **BLACK LINE** in **A2** and pick up the **WIND TURBINE**. **MOVE** to the **BLUE LINE** in **A2** and then deliver it to **WIND (B5)** using the Colour Sensor.

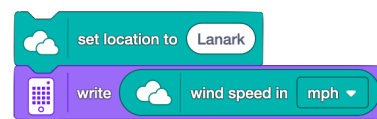
Display the **WIND SPEED** at the location (Lanark).

Return to **BASE (A1)**

Tip: The **WIND TURBINE** is heavy so you will have to **HOLD** the **LARGE** motor.



Tip: Your device must be connected to the internet for this to work!



TINKERING TIME...

After completing Challenges A-E successfully, take time to tinker!

Why not:

- Program your EV to pick up the **HYDRO TURBINE** from **A2** using the Colour Sensor. Then deliver it to **HYDRO (C3)** - play a **SOUND** and display a **MESSAGE** on arrival?
- Program your EV to collect the **WIND TURBINE** from **STORAGE (B1)** and deliver it to **WIND (B5)** using the Colour Sensor. Go on to collect the **HYDRO TURBINE** from **HYDRO (C3)** and deliver it to the top **STORAGE SHELF (B1)**?
- Deliver the **SOLAR PANEL** to **SOLAR (D2)** BUT only deliver it IF the weather is **SUNNY** in that location when you get there (you can decide on the location). If **NOT**, then bring it back to **BASE (A1)**?