

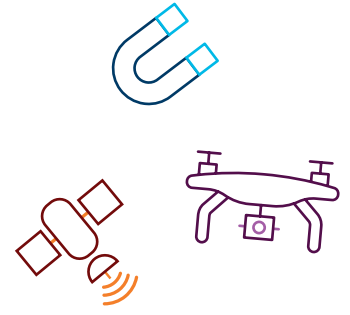


The IET

DIY Faraday Challenge Day

Land Rover BAR Teacher Extras





DIY Faraday Challenge Day





Presented to



Signed by

Date





Account sheet

Team.....

You will need to keep an accurate record of all the purchases your team makes.

Materials/resources purchased	Quantity	Cost		Faradays remaining
		Spent	Received	
Total Faradays remaining:				





Student Team Registration Form

Team.....

Faraday Challenge Date:.....

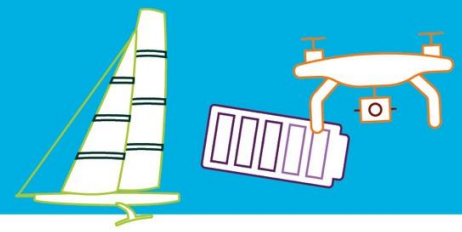
Your School Name:.....

Your Teacher's Name:.....

Team Member Names (please print clearly):

	First name	Surname
1		
2		
3		
4		
5		
6		





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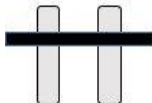


Shop Manager Balance Sheet School Date

Faradays spent at each visit to the shop	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Team 7
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
TOTAL FARADAYS SPENT							

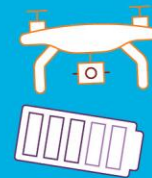


Shop resource sheet for shop manager

Below are the items available to buy in the shop.

Item		Description	Unit	Cost
Crocodile leads		Lead with crocodile clips at each end	Each	6 Faradays
Piezo buzzer		Connect to the rings in a circuit to give a sound output	Each	8 Faradays
LED – green		LED which can be connected to the rings in circuit – green. Must be used with a resistor.	Each	8 Faradays
Thermistor + resistor		Component that detects the ambient temperature and changes resistance to allow a current to flow through a circuit. Must be used with a resistor.	Each	16 Faradays
Light Dependent Resistor + resistor		Component that detects the light level and changes resistance to allow a current to flow through a circuit when it becomes dark. Must be used with a resistor.	Each	16 Faradays
Moisture sensor		Component which detects moisture in the surroundings.	Each	16 Faradays
Servo motor		This is a motor whose angular motion can be controlled. It is used if you want to move something to a specific position.	Each	16 Faradays
Flex sensor		Used to detect whether a material is bending.	Each	16 Faradays





Item	Description	Unit	Cost
Strapping	Used to strap the BBC micro:bit on for wearable technology products	30 cm piece	8 Faradays
Tape measure	Used for measuring distance for distance/time or speed calculations	Each	6 Faradays
Strong clear plastic	Rectangular piece of plastic	Each	4 Faradays
Dowel	15cm piece of solid cylindrical wooden rod used to create structures	Each	6 Faradays
Polyfoam	A5 foam sheet – assorted colours	Each	12 Faradays
Green wire	Used to connect structures (not for connection to the micro:bit)	20 cm piece	4 Faradays
Coloured card	A4 sheet of card – assorted colours	Each	8 Faradays
Tin foil	A conductive material	30cm strip	6 Faradays
Masking tape	Can be used to secure parts in your design - do not stick anything to your BBC micro:bit or it may not work properly.	30cm piece	6 Faradays
Thick foam	Can be used to make pressure switches or enhance your design.	Each	6 Faradays
Cable ties	Can be used to hold your BBC micro:bit onto a background	Each	4 Faradays
Scissors	Used for soft materials only – do not use to cut wires or any part of your BBC micro:bit.	Each	4 Faradays
Stapler	Used to staple soft materials only – do not use to staple anything to your BBC micro:bit	Each	6 Faradays
Hole punch	Used to make small holes in soft materials	Each	4 Faradays
Rulers	Used to measure any part of your product or additional items	Each	4 Faradays
String	Can be used as part of your product design	30cm piece	6 Faradays





F6.0

Crocodile leads



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Crocodile leads

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String



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String

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Piezo buzzer



Piezo buzzer

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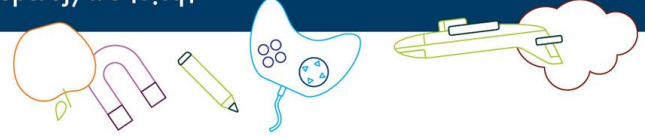
LEDs - green



LEDs - green

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Cable tie



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Cable tie

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F16.0

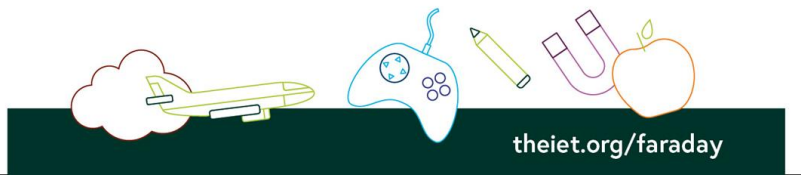
Thermistor



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Thermistor

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**Light
Dependent
Resistor**

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**Light
Dependent
Resistor**

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FREE

Calculator

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Calculator

FREE

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F12.0

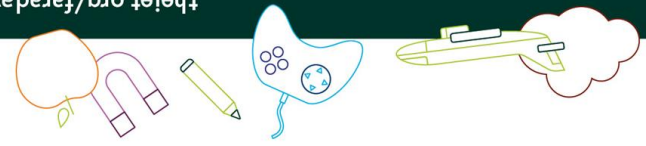
Polyfoam



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Polyfoam

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Coloured card



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Coloured card

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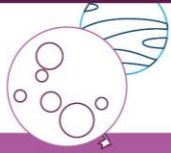


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Thick foam



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Thick foam

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Green wire



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Green wire

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Dowel



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Dowel

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Masking tape



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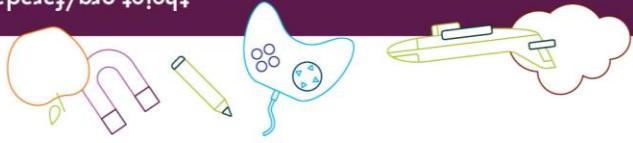
Masking tape

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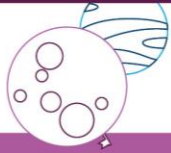
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Scissors



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Scissors

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Stapler



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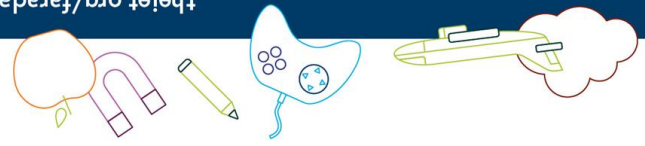
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Stapler

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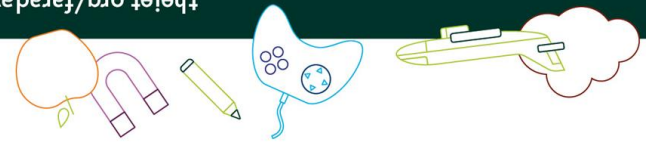
Hole punch

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Hole punch

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Ruler

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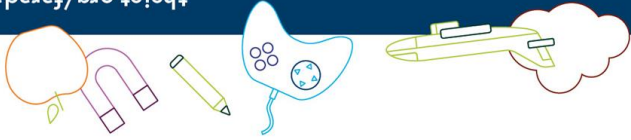
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Ruler

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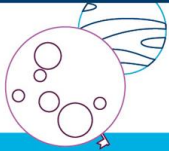


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Servo motor



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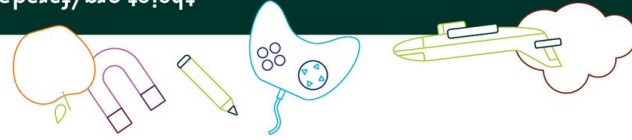
Servo motor

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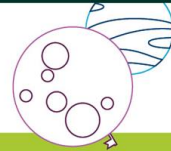
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Moisture sensor



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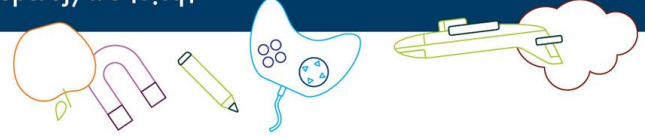
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Moisture sensor

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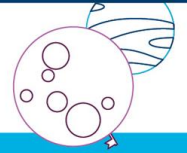


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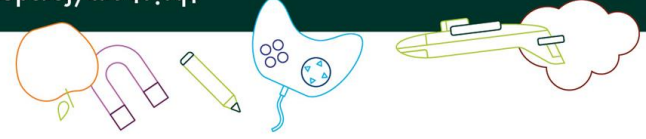
F8.0

Strapping



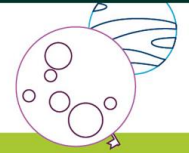
Strapping

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Tape measure

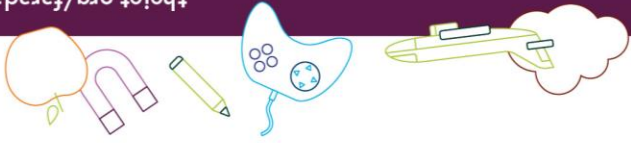


Tape measure

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Flex sensor



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Flex sensor

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Strong clear plastic



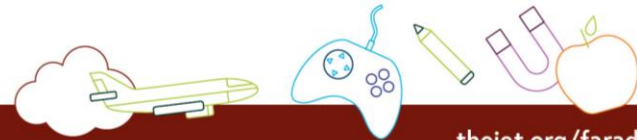
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Strong clear plastic

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Tin foil

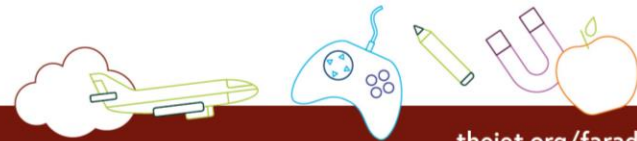
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Tin foil

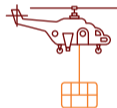
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Faraday Reserve Note

= One Faraday



Michael Faraday





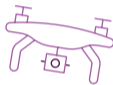
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F5

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Five Faradays



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F10

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Ten Faradays

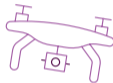
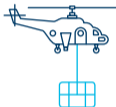
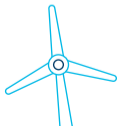


Michael Faraday



Faraday Reserve Note

Twenty Faradays



Michael Faraday