

Innovation Kit and potential suppliers

Item	Quantity for 6 teams	Link to potential supplier	Notes
Section A – (included in subsidised kits)			
Crocodile leads	50	https://www.jprelec.co.uk/categories/cables-and-connectors/connectors/single-pole/crocodile-clips-and-leads/crocodile-leads-set-of-10/product/crocodile-leads-set-of-10/705-100~705-100	
Piezo buzzer	6	https://kitronik.co.uk/products/piezo-buzzer-with-drive?variant=31813621841983	
LEDs – 6 of 5 different colours	30	https://www.amazon.co.uk/gp/aw/d/B07DPJ23YT	Be aware of voltage of different colours.
Motor	3	https://www.jprelec.co.uk/categories/electro-mechanical/motors-fans-and-accessories/gearboxes-and-motors/dc-motors/re260-mm18-medium-torque-round-dc-motor/	
Push to make switch	3	https://kitronik.co.uk/products/miniature-push-to-make-switch-red	Only switch available to encourage making own
Motor holder	3	https://www.rapidonline.com/rapid-self-adhesive-motor-mounts-pack-of-10-37-0360	Inserts can hold syringes for pneumatics
Gear attachment for motor	3	https://www.amazon.co.uk/dp/B0G67376YJ?psc=1&smid=AV8DU5ZGZQKPV&ref=chk_typ_imgToDp	Must fit spindle of motor and tooth numbers must match gear ratios
Pulley attachment for motor	3	https://www.tts-group.co.uk/plastic-motor-pulleys/1003745.html	Needed for pulley wheels
2AA cells in battery holder with flying leads	12	https://www.rapidonline.com/comfortable-bh-322-1a-2-x-aa-flying-leads-battery-holder-18-0122	
AA batteries (Pack of 40)	50	https://www.rapidonline.com/varta-4106229391-energy-aa-batteries-1-5v-40-pcs-long-life-leakproof-08-0836	
Plastic syringes with tube (see below)	6	https://www.amazon.co.uk/dp/B0BKNFC9J2	Needed for pneumatic system
Tubing 15cm piece	3	https://www.rapidonline.com/rapid-pen-0035-rvfm-tubing-3-5mm-clear-25m-coil-37-1289	
Small, medium and large gears (3 of each size)	9	https://www.tts-group.co.uk/assorted-plastic-gears-60pk/1003641.html	Check centre diameter of large gear for size of dowel.
Round wire nails 30mm	10	https://www.rapidonline.com/forgefix-500nlrh25b-round-head-nail-bright-finish-25mm-bag-of-500g-84-8988	Needed for moisture sensor
Dowel (200mm/5mm)	14	https://www.amazon.co.uk/Wooden-Dowel-Rods-5mm-20cm/dp/B0DVT92RRZ	Check diameter to fit pulley wheels, wooden wheels and large cogs
Pulley wheel (54mm/5mm)	3	https://www.hope-education.co.uk/product/fe00059069	Ideally need to be the same size as the wooden wheel
Wooden wheel (54mm/5mm)	12	https://www.rapidonline.com/rapid-54mm-mdf-wheels-centre-5mm-pack-of-100-37-0421	Check centre hole matches dowel

Plastic reel	3	https://www.rapidonline.com/major-brushes-cotton-reels-pack-of-100-06-0630	
Servo motor (0-120 degrees)	3	https://kitronik.co.uk/products/2565-180-mini-servo	
Servo motor (continuous)	3	https://kitronik.co.uk/products/2589-fs90r-360-degree-continuous-rotation-servo	
Servo motor control units	5	https://www.amazon.co.uk/Fasizi-Consistency-Controller-Channels-Reverse/dp/B09Z27S94Z	Best brought through Amazon or eBay. Prices vary massively
4 AA cells in battery holder with jumper leads (need to be made up with 2 items below)	5	https://cpc.farnell.com/multicomp-pro/mp000333/4x-aa-battery-holder-coil-spring-contact-flat-wire-leads-150mm/dp/BT06513	Attach two jumper leads to terminal block and then put leads from battery holder into other side of terminal block. Prevents short circuits if engineers try using crocodile leads.
Jumper leads	12	https://kitronik.co.uk/products/jumper-wires-premium-mf	
Terminal blocks in pairs	5	https://kitronik.co.uk/products/2410-12-way-terminal-block-pack-of-10	
Light Dependent Resistor (LDR)	3	https://www.digikey.co.uk/en/products/detail/advanced-photonix/NORPS-12/5039796	
Masking tape	6	https://www.amazon.co.uk/gp/product/B08G8WC9QF	Easier to disassemble than Sellotape or glue

Section B – Also required (not provided in subsidised kit)		
		Notes
For shop		
A4 Coloured card	15 sheets	
Aluminium foil	1 roll	
Paperclips	10	
Elastic bands (Number 16 work best)	10	Used for pulley wheels to attach to motors via pulley attachment
String	1	
Sponge (7 x 7 cm approx.)	8	Check it has no moisture in it. 1 cm upholstery foam or polyfoam works best.
Recyclable materials	Assortment	Make sure you have plenty. These can be very popular!

For tool station		For cutting station	
Stapler	2	Cutting mats A3	2
Ruler	6	Junior hacksaw	1
Scissors	6	Bench hook	1
Single hole punch	3		
Scissors - left hand	2		