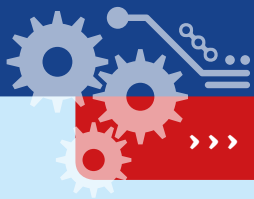


ROBOTICS WORKSHOP

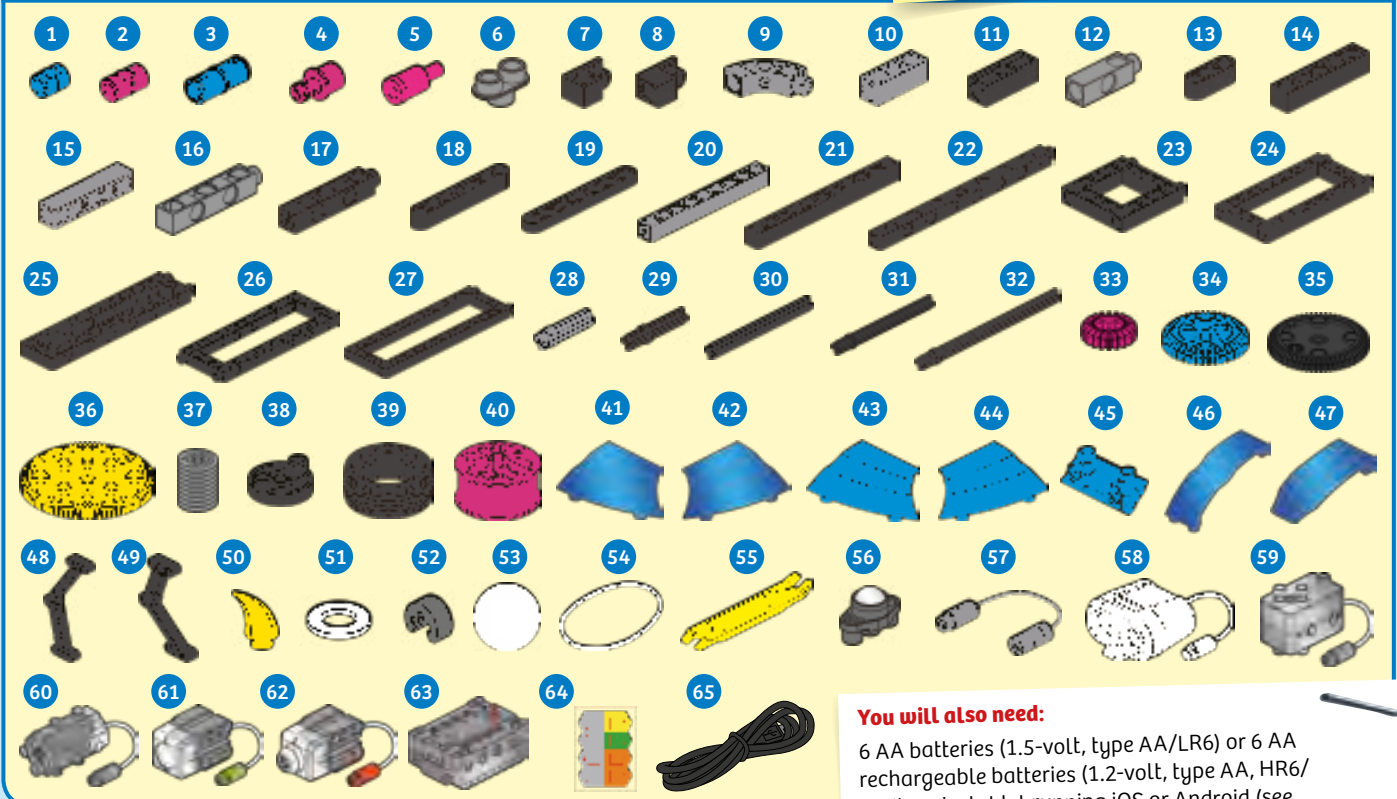




>>> KIT CONTENTS

GOOD TO KNOW! If you are missing any parts, please contact Thames & Kosmos customer service.
 US: techsupport@thamesandkosmos.com
 UK: techsupport@thamesandkosmos.co.uk

What's inside your experiment kit:



You will also need:

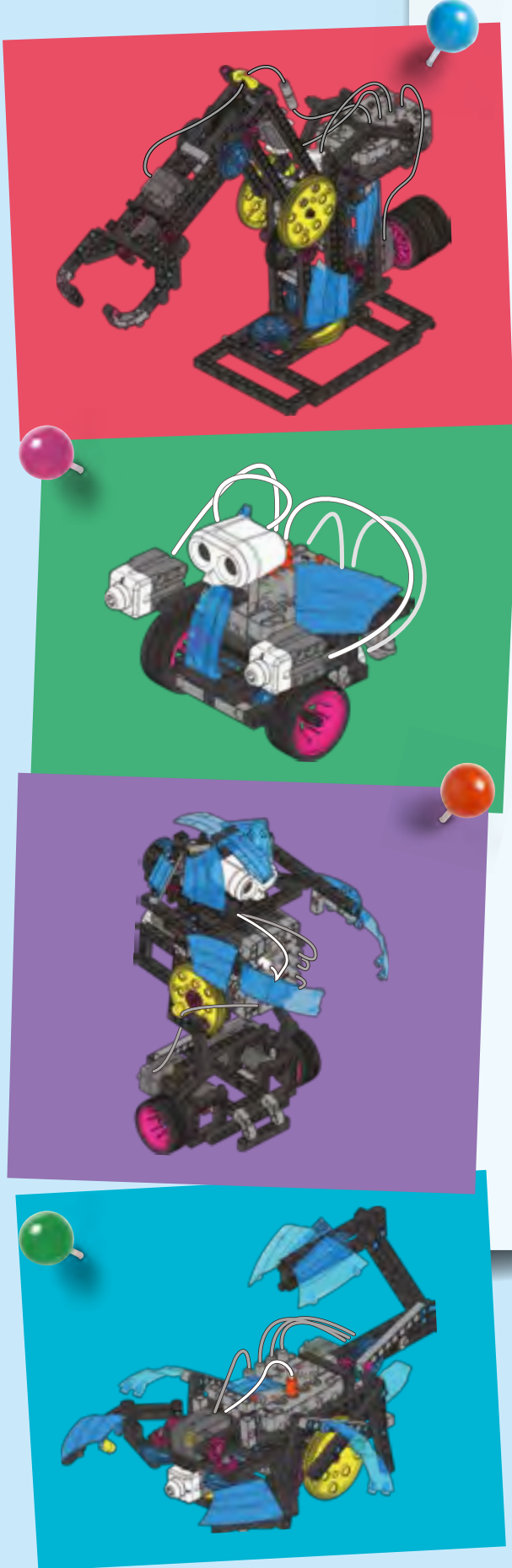
6 AA batteries (1.5-volt, type AA/LR6) or 6 AA rechargeable batteries (1.2-volt, type AA, HR6/KR6) and a tablet running iOS or Android (see page 8 for hardware requirements)

Checklist: Find – Inspect – Check off

✓	No.	Description	Qty.	Item No.
<input type="radio"/>	1	Short anchor pin	46	7344-W10-C2B1
<input type="radio"/>	2	Anchor pin	25	7061-W10-C1K1
<input type="radio"/>	3	Joint pin	21	1156-W10-A1B
<input type="radio"/>	4	Shaft plug	12	7026-W10-H1K
<input type="radio"/>	5	Shaft pin	8	7026-W10-J3K1
<input type="radio"/>	6	Two-to-one converter	12	7061-W10-G1S2
<input type="radio"/>	7	90-degree converter X, black	2	7061-W10-J1D
<input type="radio"/>	8	90-degree converter Y, black	2	7061-W10-J2D
<input type="radio"/>	9	Curved rod, gray	2	7026-W10-V1S2
<input type="radio"/>	10	3-hole rod	5	7026-W10-Q2S1
<input type="radio"/>	11	3-hole cross rod, black	5	7026-W10-X1D
<input type="radio"/>	12	3-hole dual rod, gray	12	7061-W10-R1S2
<input type="radio"/>	13	3-hole wide rounded rod, black	6	7404-W10-C1D
<input type="radio"/>	14	5-hole rod B, black	6	7413-W10-K2D
<input type="radio"/>	15	5-hole rod C, gray	1	7413-W10-K3S1
<input type="radio"/>	16	5-hole dual rod B, gray	3	7026-W10-S2S1
<input type="radio"/>	17	5-hole dual rod C, black	2	7026-W10-S3D
<input type="radio"/>	18	7-hole wide rounded rod, black	5	7404-W10-C2D
<input type="radio"/>	19	7-hole flat rounded rod, black	5	7404-W10-C3D
<input type="radio"/>	20	9-hole rod	4	7407-W10-C1S
<input type="radio"/>	21	11-hole rod	7	7413-W10-P1D
<input type="radio"/>	22	15-hole dual rod	3	7413-W10-H1D
<input type="radio"/>	23	5x5 square frame	6	7026-W10-T2D
<input type="radio"/>	24	5x10 frame	2	7413-W10-H1D
<input type="radio"/>	25	3x13 dual frame	2	7406-W10-A1D
<input type="radio"/>	26	5x13 dual frame	3	7061-W10-U1D
<input type="radio"/>	27	5x15 frame	4	7413-W10-J1D
<input type="radio"/>	28	Motor shaft	6	7026-W10-L1S1
<input type="radio"/>	29	35-mm axle	4	7413-W10-O1D
<input type="radio"/>	30	65-mm axle	2	7416-W10-C1D
<input type="radio"/>	31	70-mm axle	11	7061-W10-Q1D
<input type="radio"/>	32	100-mm axle	1	7413-W10-L2D
<input type="radio"/>	33	Small gear, magenta	11	7026-W10-D2K

✓	No.	Description	Qty.	Item No.
<input type="radio"/>	34	Medium gear, blue	9	7346-W10-C1B1
<input type="radio"/>	35	Large gear, black	2	7026-W10-W5D
<input type="radio"/>	36	Extra large gear, yellow	3	7328-W10-G2Y
<input type="radio"/>	37	Worm gear	4	7344-W10-A1S1
<input type="radio"/>	38	Rod connector	3	7026-W10-L2D
<input type="radio"/>	39	Tire	2	7407-W10-A1D
<input type="radio"/>	40	Wheel	2	7407-W10-B1K
<input type="radio"/>	41	Body plate left, transparent	1	7392-W10-L1B
<input type="radio"/>	42	Body plate right, transparent	1	7392-W10-L2B
<input type="radio"/>	43	Body plate left, blue	1	7392-W10-L1B1
<input type="radio"/>	44	Body plate right, blue	1	7392-W10-L2B1
<input type="radio"/>	45	Side plate	2	7392-W10-M1B1
<input type="radio"/>	46	Large body plate	2	7398-W10-C1B
<input type="radio"/>	47	Small body plate, B	2	7398-W10-C2B
<input type="radio"/>	48	Left leg	1	7397-W10-C1D
<input type="radio"/>	49	Right leg	1	7397-W10-C2D
<input type="radio"/>	50	Horn	2	7128-W10-G1Y
<input type="radio"/>	51	Washer	2	R12#3620
<input type="radio"/>	52	Axle lock	1	3620-W10-A1D
<input type="radio"/>	53	Large foam ball	3	K30#7366-2
<input type="radio"/>	54	Rubber band	1	R10-02
<input type="radio"/>	55	Anchor pin lever	1	7061-W10-B1Y
<input type="radio"/>	56	Ball roller	1	1247-W85-C1S
<input type="radio"/>	57	Extension cord	1	1246-W85-D
<input type="radio"/>	58	Ultrasonic sensor	1	7416-W85-B
<input type="radio"/>	59	Motor (40x DDM)	2	7400-W85-A1
<input type="radio"/>	60	Motor (32x DDM)	2	7392-W85-B3
<input type="radio"/>	61	Light sensor	1	1246-W85-B
<input type="radio"/>	62	Touch sensor	2	1246-W85-C
<input type="radio"/>	63	CB1 Core controller	1	1246-W85-A1-US
<input type="radio"/>	64	Sticker sheet	1	R20#1246A-2
<input type="radio"/>	65	USB 2.0 cable	1	E30#1247A

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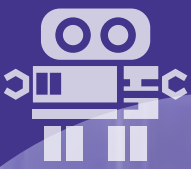
Publisher's information **Inside back cover**

TIP!

Above each set of assembly instructions, you will find a red bar:

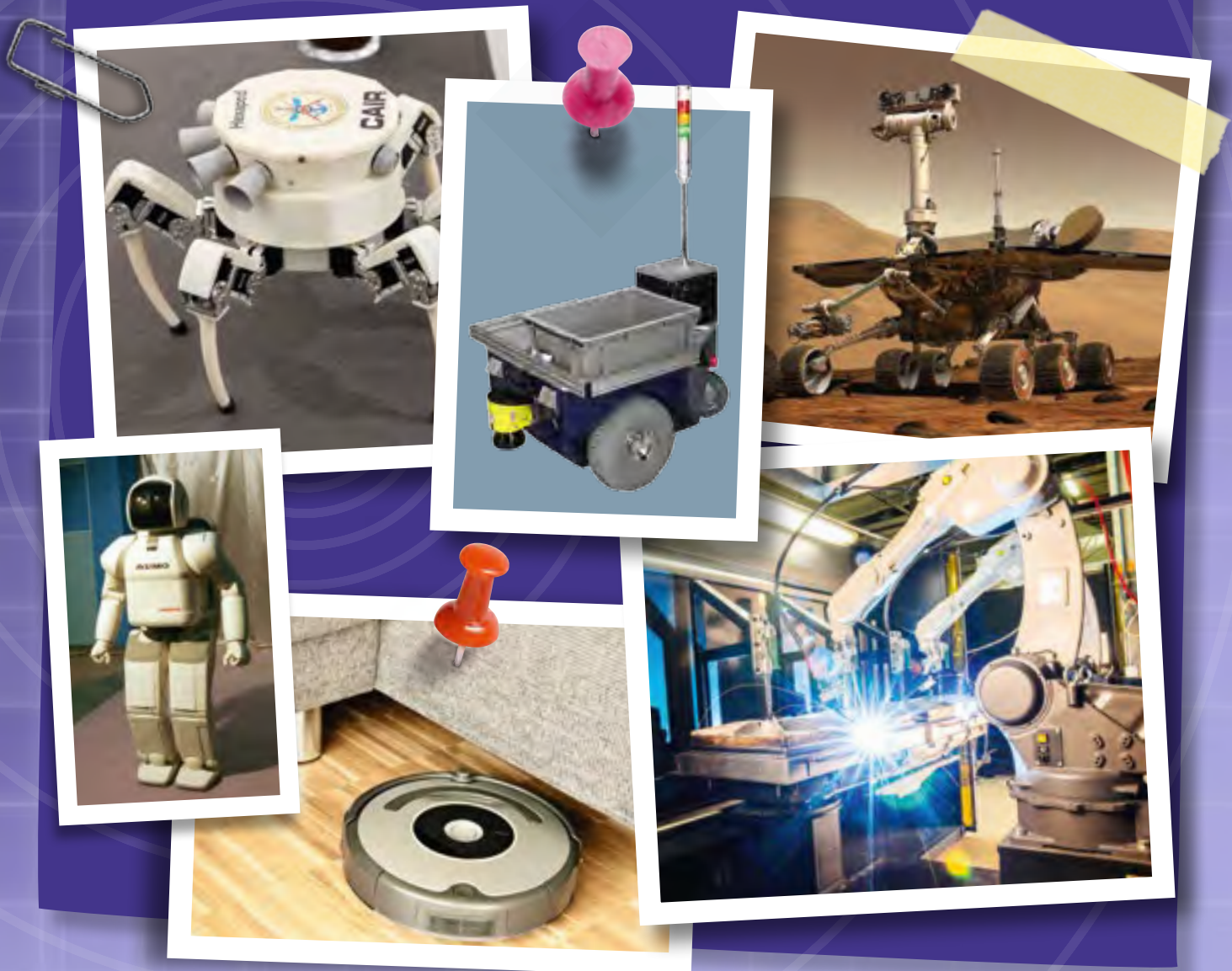
>>> It shows you the difficulty level for the model's assembly:

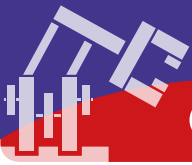




Robotics Workshop: The Robot Builder's Toolkit

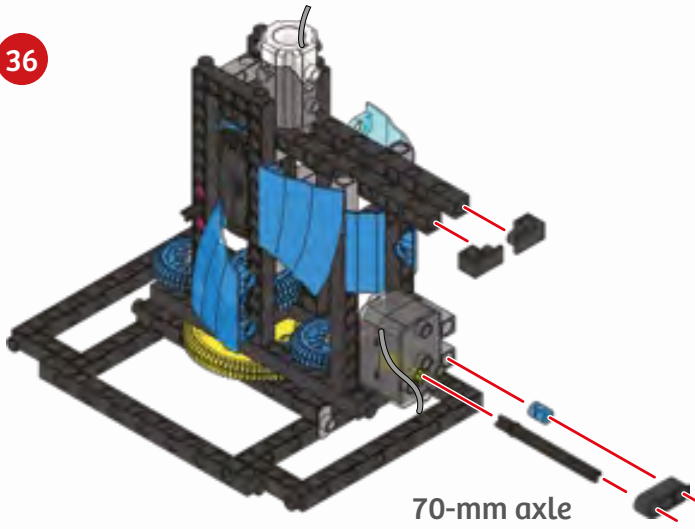
Robots are mechanical agents controlled by computer programs. They can be programmed to perform all sorts of tasks and movements. Robots can assemble cars, play soccer, vacuum floors, deliver packages, map terrain, climb mountains, entertain people, cook dinner — the list goes on and on. With this kit, you can build robots that use different sensors to sense their environment. With the app, you can program the robots' motors, lights, and speaker to behave in different ways depending on the data coming from their sensors. First, build the robots in this manual to learn how everything works, and then design your own robots!





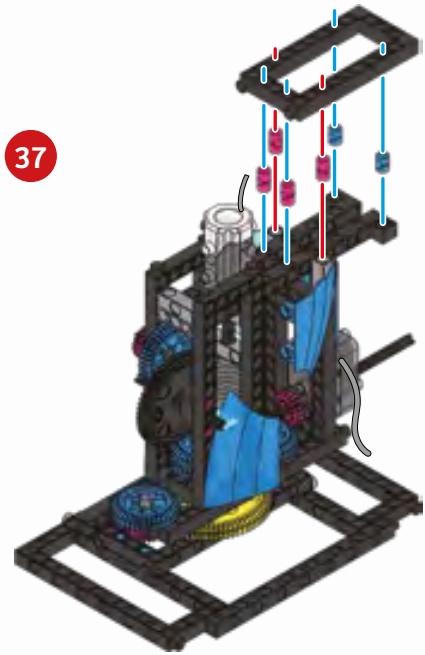
ROBOTIC ARM

36

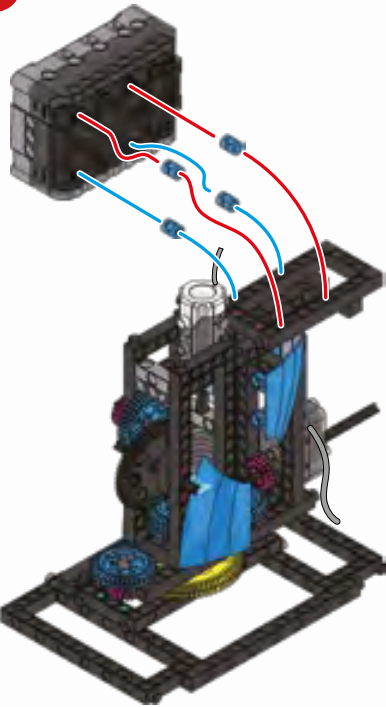


70-mm axle

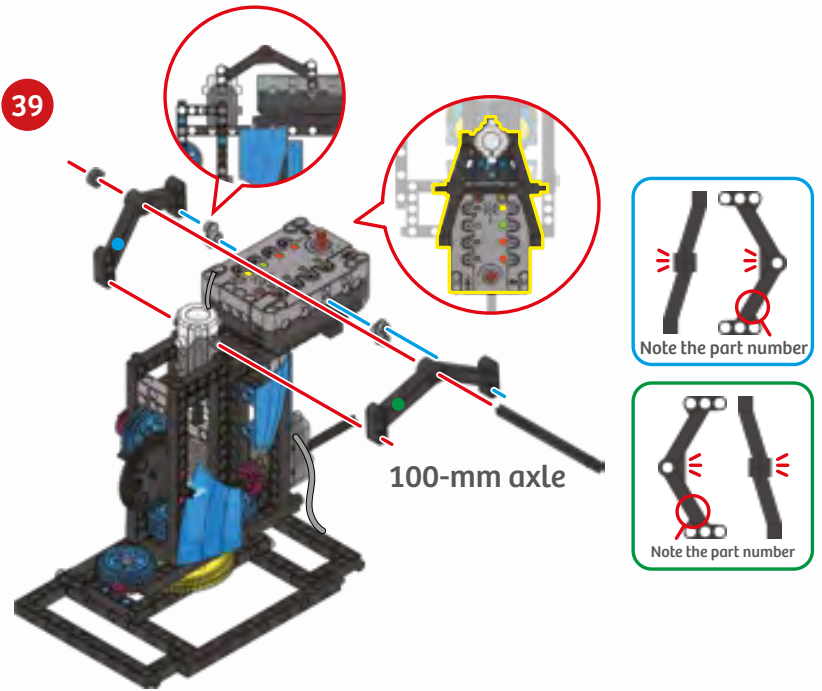
37



38



39

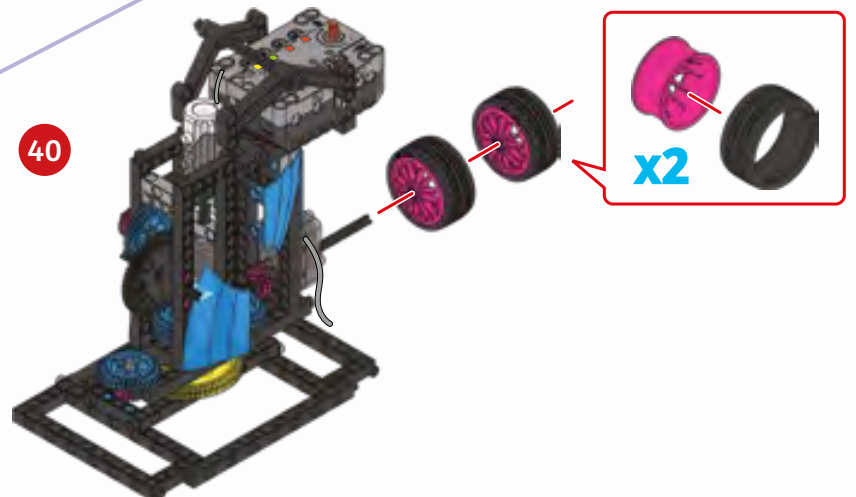


100-mm axle

Note the part number

Note the part number

40



x2

