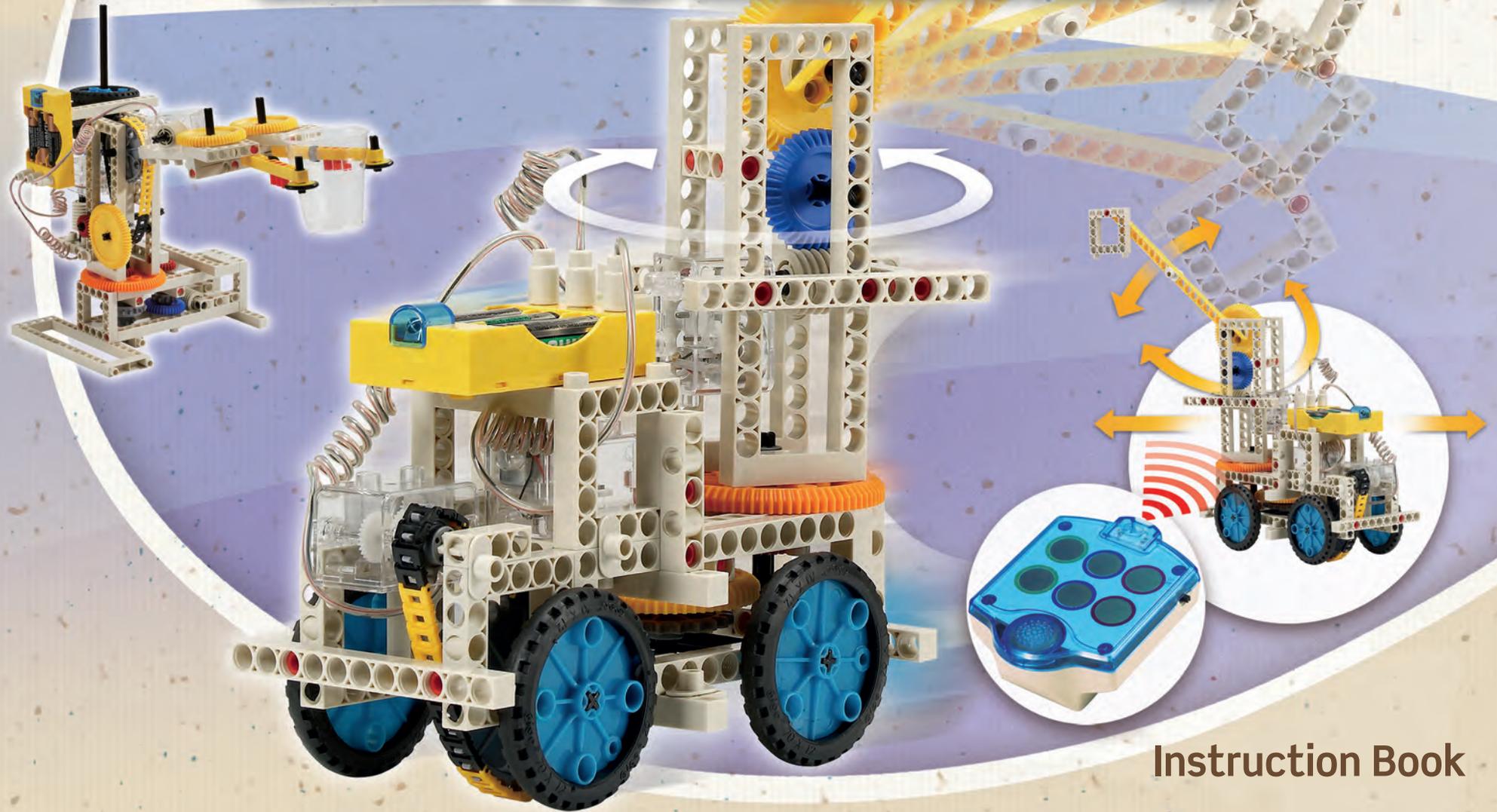


EXPERIMENT MANUAL

# REMOTE-CONTROL MACHINES



THAMES & KOSMOS

Instruction Book



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### RECOMMENDATIONS

1. Please read the instructions, follow the safety rules, and keep them for reference. We recommend that you make the models in the given order. You will then be able to better understand the assembly and operation of the parts.
2. This is a kit designed for children over 8 years of age. It helps children develop mechanical thinking and problem solving skills.
3. Discuss the safety warnings and possible risks involved with the children before allowing them to build the models.
4. Do not insert the wire connectors and other components into any electrical sockets, which will cause a serious damage. Only the recommended batteries are allowed for use with this kit.
5. CLEANING:
  - Before cleaning, remove the batteries.
  - Use only a cloth that has been slightly dampened with water.
  - Never use soap or detergent.

### WARNING TO PARENTS

This kit is not suitable for children under 3 years of age. It contains small parts that a child could swallow. This kit must be kept out of the reach of very young children.

### Receiver/Battery Holder



Insert three AA batteries (1.5 V) into the combination receiver/battery holder. The polarity of the batteries and the markings on the battery compartments should match.



To later remove a battery from the holder, use the "B" end of the part separator tool.

### Remote Controller



1. Lightly press and slide the lid outward to open it.

2. Insert two AA batteries (1.5 V) and pay attention to the polarity of the batteries and the markings on the compartments.

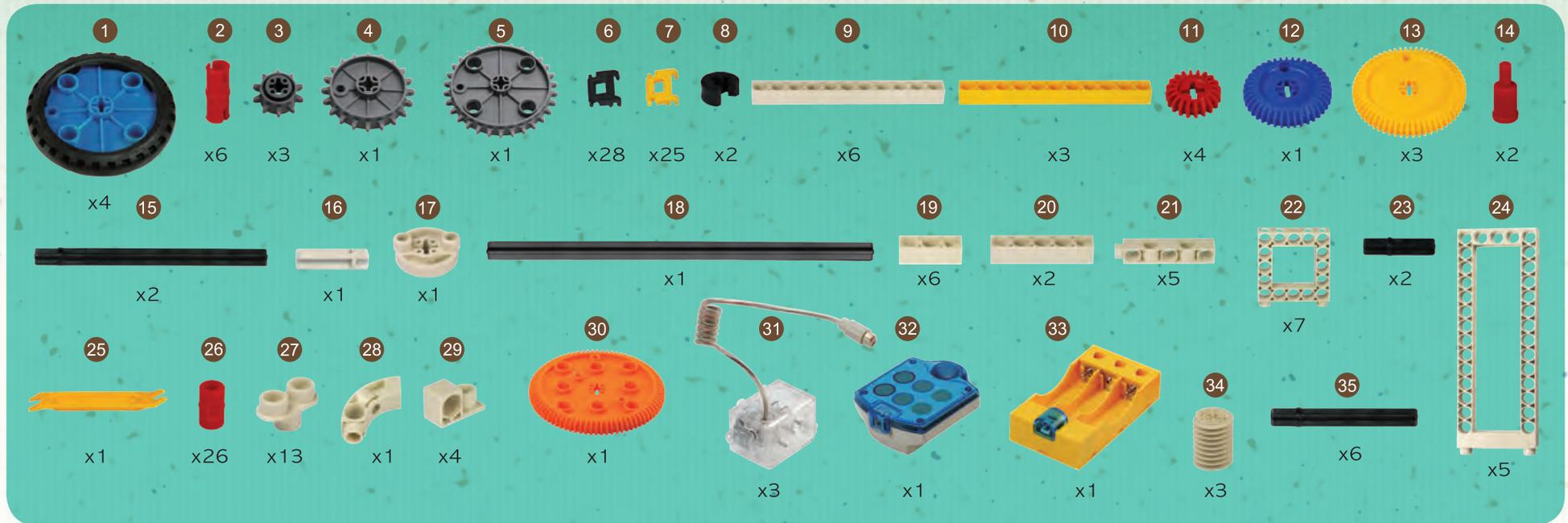
3. Slide back the lid.

### SAFETY GUIDELINES

1. Regular, non-rechargeable batteries must not be recharged.
2. Rechargeable batteries can be charged only under the supervision of an adult.
3. Rechargeable batteries are to be removed from the toy before being charged.
4. Do not force open the battery.
5. Do not throw the battery into the fire.
6. Pay attention to the correct polarity.
7. Do not short-circuit batteries. They could explode!
8. Do not mix old and new batteries.
9. Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries.
10. The exhausted batteries must be disposed of as hazardous waste.
11. Remove the batteries when not planning to use the device for a long period of time.
12. Misuse of batteries can cause them to leak, which damages and corrodes the area around the battery, creating the danger of fire, explosion, and personal injury.



## Parts List | REMOTE-CONTROL MACHINES



NO	PARTS NAME	PCS
1	WHEEL AND TIRE	4
2	JOINT PIN	6
3	SMALL SPROCKET	3
4	MEDIUM SPROCKET	1
5	LARGE SPROCKET	1
6	CHAIN UNIT (BLACK)	28
7	CHAIN UNIT (YELLOW)	25
8	AXLE LOCK	2
9	11-HOLE ROD (GRAY)	6
10	11-HOLE ROD (YELLOW)	3
11	SMALL GEAR (20T)	4
12	MEDIUM GEAR (40T)	1
13	LARGE GEAR (60T)	3

NO	PARTS NAME	PCS
14	SHAFT PIN	2
15	LONG AXLE	2
16	MOTOR AXLE	1
17	ROD CONNECTOR	1
18	EXTRA LONG AXLE	1
19	3-HOLE ROD	6
20	5-HOLE ROD	2
21	3-HOLE DUAL ROD	5
22	SQUARE FRAME	7
23	SHORT AXLE	2
24	LONG FRAME	5
25	PART SEPARATOR TOOL	1
26	ANCHOR PIN	26

NO	PARTS NAME	PCS
27	TWO-TO-ONE CONVERTER	13
28	CURVED ELBOW ROD	1
29	90 DEGREE CONVERTER - LEFT	4
30	80T GEAR	1
31	GEARED MOTOR WITH WIRE CONNECTOR	3
32	REMOTE CONTROLLER	1
33	RECEIVER/BATTERY HOLDER	1
34	WORM GEAR II	3
35	MEDIUM AXLE	6
36	DIE-CUT CARDBOARD PIECES	1
<b>TOTAL</b>		<b>182</b>

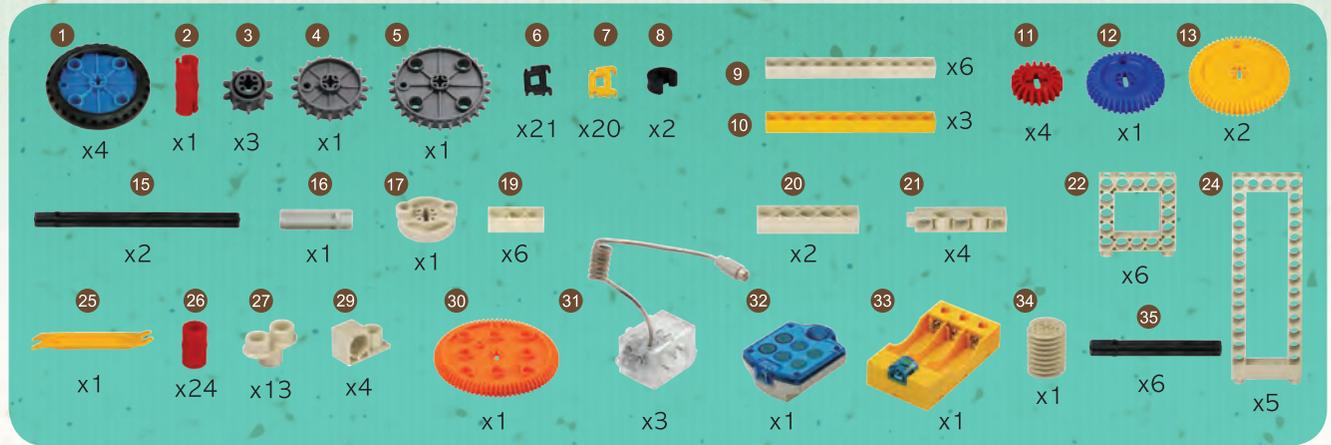




# REMOTE-CONTROL MACHINES | Model 3 Crane

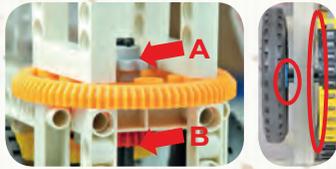


Size (cm) : 23 (L) x 12 (W) x 46 (H)



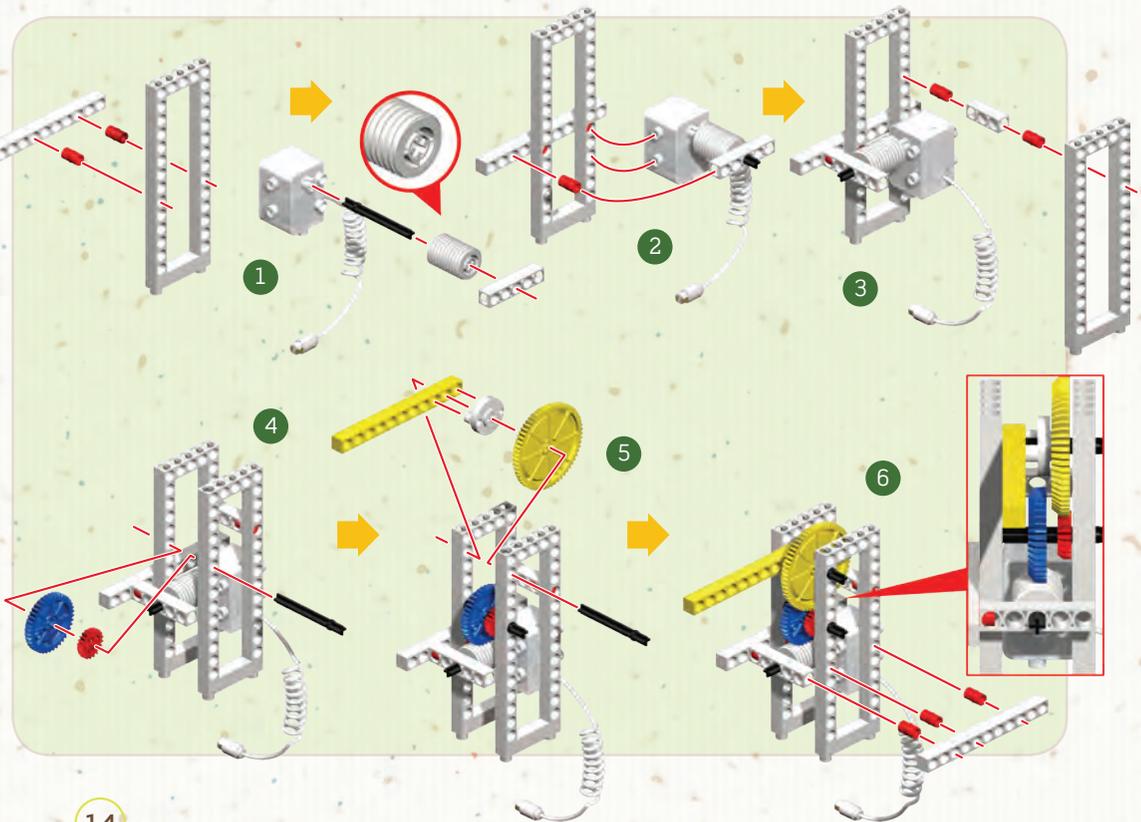
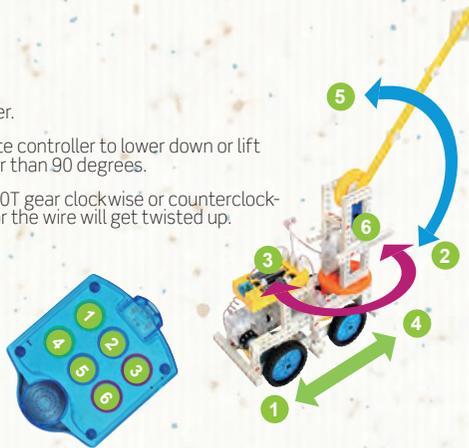
## Tips for Assembly :

- Press the gear A downward and gear B upward to hold the 80T Gear in place.
- The wheels and the drive chain must be kept 1 mm away from the frame so they can turn smoothly.
- Use the end of the part separator tool marked with "A" to pry up the anchor pin.
- If the motor doesn't work, check to make sure the wire connector of the motor and the output of the receiver/battery holder are well connected, or that the batteries are not dead.



## How to Operate :

1. Turn on the switch on the remote controller.
2. Touch the touch pad 2 or 5 on the remote controller to lower down or lift up the long crane arm. Don't lift it up higher than 90 degrees.
3. Touch the touch pad 3 or 6 to turn the 80T gear clockwise or counterclockwise. Don't turn it more than 270 degrees or the wire will get twisted up.
4. Touch the touch pad 1 or 4 to drive the crane forward or backward.



# Model 3 Crane | REMOTE-CONTROL MACHINES

