

# RC Robot

**Warning!** Not suitable for children under 36 months. Choking hazard. **Warning!** Not suitable for children under 36 months because of small ball. Only for use by children over 8 years old. To be used solely under the strict supervision of adults that have studied the precautions given in the experimental set. Hair entanglement may result if the child's head is too close to the motorized unit of this toy. This toy contains functional sharp point – on the component leads. Do not short-circuit the battery terminals and motors, which may cause overheating. Do not lock the motor or other moving parts, which may cause overheating. Use with care and only under supervision of adult.

Packaging materials are not toys. Please remove all packaging and packing tags/wires before giving this toy to your child.

**CAUTION!** Take extra care during unpacking and use.  
Please take note: As an extra precaution, check this toy regularly for signs of wear or damage. Read the instructions carefully before use, then follow them and keep them for reference.

**Warning!** Do not short-circuit the battery terminals and motor, which may cause overheating. The wires are not to be inserted into socket outlets.

**Batteries required: 6 x AAA/LR03 (Not included)**

**IMPORTANT: Keep these instructions. DO NOT DISCARD.**

1. Only adults should install and replace batteries.
2. Alkaline batteries are recommended.
3. If the device has not been used for a long time, remove the batteries.
4. Do not use rechargeable batteries.
5. Do not mix old and new batteries.
6. Do not mix alkaline, standard (carbon zinc) or rechargeable (nickel cadmium) batteries.
7. Exhausted batteries are to be removed from the toy.
8. Non-rechargeable batteries are not to be recharged.
9. The supply terminals are not to be short-circuited.
10. Only batteries of the same or equivalent type as recommended are to be used.
11. Batteries are to be inserted with the correct polarity.
12. Do not dispose of batteries in fire, batteries may explode or leak.
13. Batteries may explode or leak if misused.



If at any time in the future you should need to dispose of this product please note that Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.(Waste Electrical and Electronic Equipment Directive)

# Introduction

Almost every modern home has one or more remote control device, such as television or CD player. There are two major types of remote control, depending on the transmission signal used.

This RC robot uses the first type: infrared light (IR). It is commonly used for TV and home appliance control because of lower cost and it will not interfere with other radio devices. However, the range is short and the remote control must point at the device. In other words, the device must be able to “see” the control signal from the remote. Furthermore, it does not work well outdoors because the infrared part of sunlight will interfere the sensor.

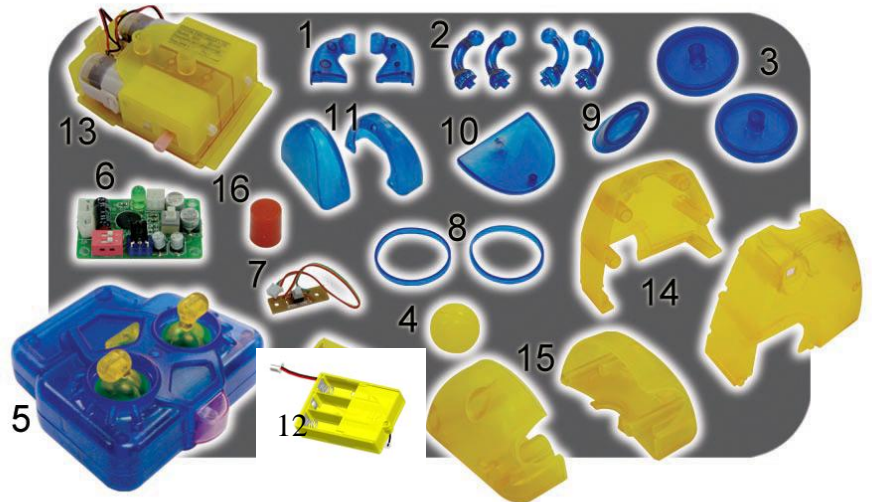
The other type of remote control uses radio wave, it is often used in car security alarm, radio controlled planes and video game consoles, etc. They have the advantages of longer range, and will not be blocked by walls and objects in between. However, they are more expensive and may interfere with other radio devices.

## How does a remote control work?

Most control remotes for electronic appliances use a near infrared diode to emit a beam of light that reaches the device. This infrared light is invisible to the human eye, but picked up by sensors on the receiving device. Video cameras see the diode as if it produces visible purple light. The sensor converts the light pulses into electrical signal and passes it to the microprocessor which decodes them as commands, for example, to turn left or move forward.

### Components:

- 1 Tail part x2
- 2 Arm part x4
- 3 Wheel x2
- 4 Tail ball x1
- 5 Remote control x1
- 6 Circuit board x1
- 7 Switch x1
- 8 Wheel ring x2
- 9 Face x1
- 10 Front cover x1
- 11 Wheel cover x2
- 12 Battery box x1
- 13 Gearbox x1
- 14 Main body part x2
- 15 Head part x2
- 16 Switch cap x1



### Steps:

1. Attach the tail part (1) to the Gearbox (13). The tail ball (4) is held in the socket at the end. (Fig. 2)

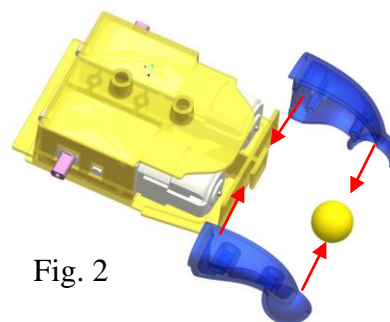


Fig. 2

2. **Install batteries into the battery box (12) according to Step 14 and put it on the gearbox, as shown in Fig. 3.**

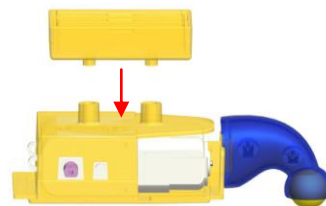


Fig. 3

3. Attach the gearbox assembly to the right main body part (14). (Fig. 4)

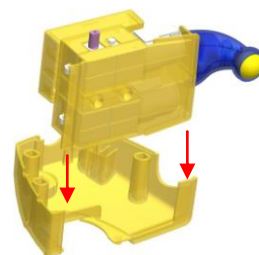
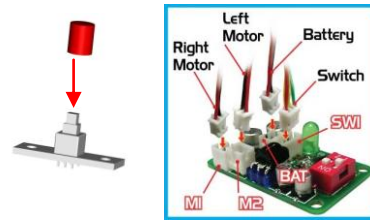


Fig. 4

4. Cover the switch (7) with the cap (16). Connect the different plugs to the circuit board (6):
  - i. Battery box - socket "BAT"
  - ii. Gearbox right motor - socket "M1"
  - iii. Gearbox left motor – socket "M2"
  - iv. Switch - socket "SW1"



See Fig. 5.

Fig. 5

5. Install the face (9) and circuit board (6) to the right head part (15). (Fig. 6)

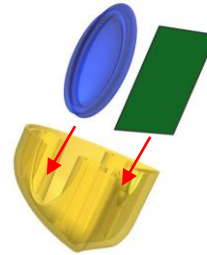


Fig. 6

6. Group the wires through the hole and close the head part (15). (Fig. 7)

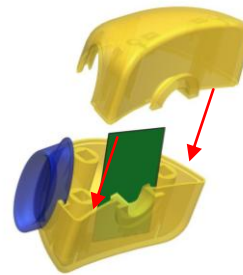


Fig. 7

7. Attach the head part to the main body assembled in step 3, make sure the wires run through the hole of both parts. (Fig.8)

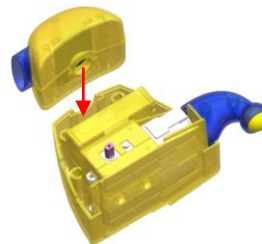


Fig. 8

8. Attach the switch (7) to the back of the main body. (Fig. 9)

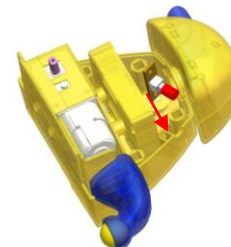


Fig. 9

9. Close the left main body part (14). (Fig. 10)

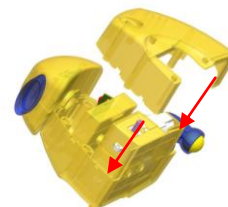
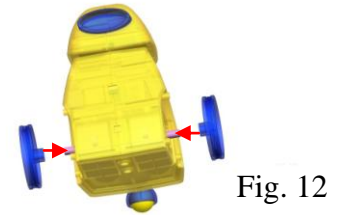
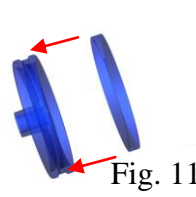


Fig. 10

10. Put the wheel rings (8) over the front wheels (3) and attach them to axles of the gearbox (13). (Fig. 11, Fig. 12)



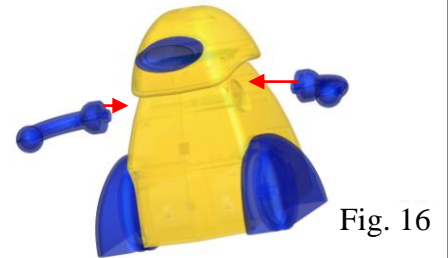
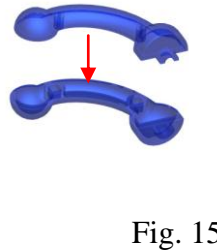
11. Attach the wheel covers (11) to both sides of the main body. (Fig. 13)



12. Attach the front cover (10) to the main body. (Fig. 14)



13. Combine the arm parts (2) and connect them to the main body. (Fig. 15, Fig. 16)



14. **Now you are done!** Use a cross head screwdriver (not included) to loosen the screw in the battery compartment door of the battery box (12), install 3 AAA batteries according to the polarity mark. (Fig. 17) Replace the door and tighten the screw. Similarly, install 3 AAA batteries into the remote control (5) as shown in Fig. 18.

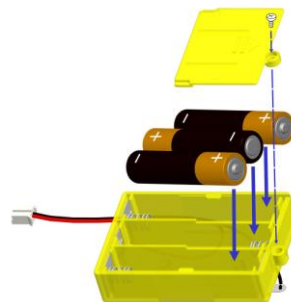


Fig. 17



Fig. 18

15. There is a channel select switch on the circuit board and the remote control. The remote control must be set to the same channel (1, 2 or 3) as the robot to be able to control it. If you are playing with your friends, each must choose a different channel so that one will not interfere with the other units. (Fig. 19)

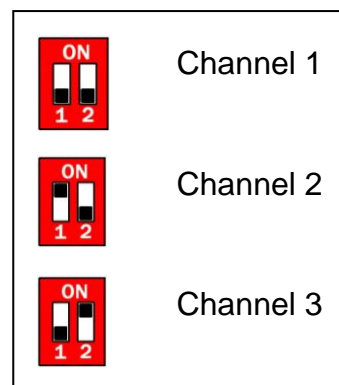


Fig. 19

16. Push the red power button on the robot **and the triangle button (A) on the remote control** to turn it on. Point the remote control towards the unit. Push both control sticks of the remote control forward or backward at the same time to move it in straight line. Move them in opposite directions to make a turn. (Fig. 20)

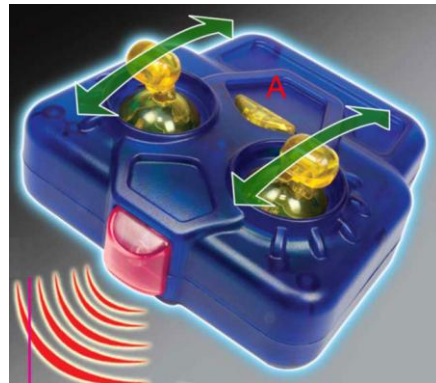


Fig. 20