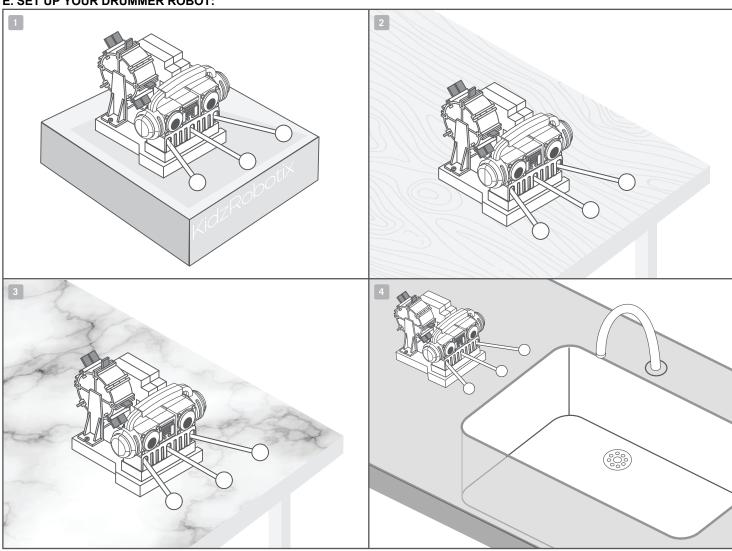
E. SET UP YOUR DRUMMER ROBOT:



Your Robot Drummer can play its beat on surfaces made from many different materials. Each different material will make the Robot Drummer's beat sound unique. Fix the Drummer to the material with adhesive tape to make a permanent beatbox. Here are some ideas to get you started:

- 1. Put the Robot Drummer on its own box.
- 2. Put the Robot Drummer on a wooden table.
- 3. Put the Robot Drummer on a plate.
- 4. Put the Robot Drummer inside a metal sink.

F. TROUBLESHOOTING:

If the cylinder does not rotate:

- Check that you are using fresh batteries.
- Check that the batteries are inserted the correct way in the battery compartment.
- Check that the wires are correctly connected (Step D5) and are touching the metal terminal.
- Check that the pegs are blocking the rotation of the cylinder.

G. FUN FACTS:

- There is a band from the UK that uses a giant homemade drum kit and junk to perform percussion. They have been performing worldwide since 2002!
- Drums are the world's oldest instruments, with their basic design remaining the same for a very long time.
- An American named Christopher Anthony played a drum roll for 8 hours, 1 min, 17 seconds at a shopping centre in California, USA, in 2012.
- In the past many machines were controlled in similar way to the Robot Drummer. They used drums with patterns of pins on them or paper sheets or cards with patterns of holes punched in them.
- More than two hundred years ago, Jacquard looms that wove patterns in cloth were programmed by cards with holes punched in them. Changing the pattern of holes in the cards changed the pattern in the finished cloth.
- Pianolas were automatic pianos that played tunes that were programmed by a roll of punched paper. Changing the pattern of holes in the paper made a pianola play a different tune.
- In a music box pins on a turning drum play a tune by plucking small metal teeth that play notes.
- In the nineteenth century mathematician Charles Babbage built a mechanical computer that was programmed to do different calculations by punched cards.
- Early electronic computers were not programmed on screen as modern computers were. Instead they were programmed by making a pattern of holes in a long paper tape that was read by the computer.

QUESTION AND COMMENTS

₹ We treasure you as a customer and your satisfaction with this product is important to us. In case you have any comments or questions, or you find any \$\frac{4}{5}\$ parts of this kit missing or defective, please do not hesitate to contact our distributor in your country, whose address is printed on the package. You are \$\frac{9}{6}\$ also welcome to contact our marketing support team at Email: infodesk@4M-IND.com, Fax (852) 25911566, Tel (852) 28936241, Web site: WWW.4M-\$\frac{1}{6}\$ IND.COM

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DRUMMER ROBOT



▲ WARNING:

CHOKING HAZARD - Small parts.
Not for children under 3 years.

O PARENTS: PLEASE READ THROUGH THESE
NSTRUCTIONS BEFORE PROVIDING GUIDANCE
O YOUR CHILDREN

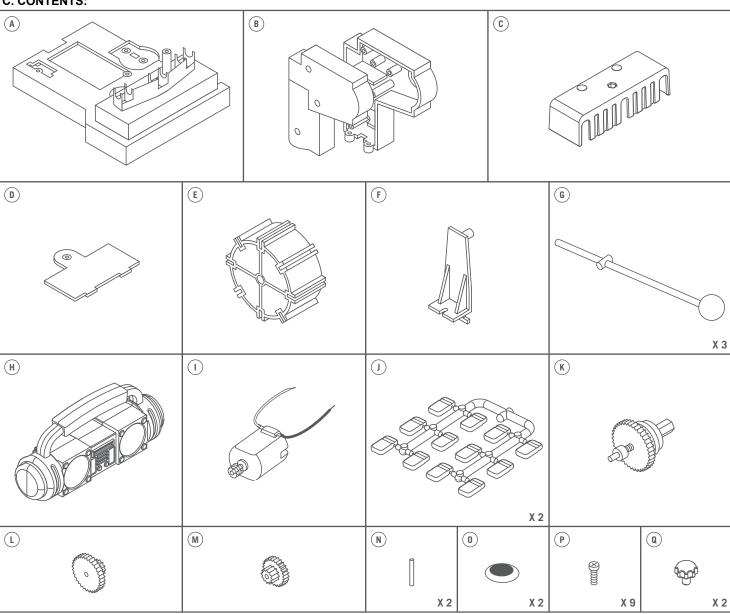
A. SAFETY MESSAGES

1. Adult supervision and assistance are required at all times. 2. This kit is intended for children 5 years or older. 3. This kit and its finished product contain small parts which may cause choking if misused. Keep away from children under 3 years old. 4. To prevent possible short circuits, never touch the contacts inside the battery case with any metal. 5. Only install battery after the kit is assembled. Adult supervision is required. 6. Do not insert any objects into the cylinder wheel. 7. Please read through all the instructions and keep them since it contains important information.

B. USE OF BATTERIES:

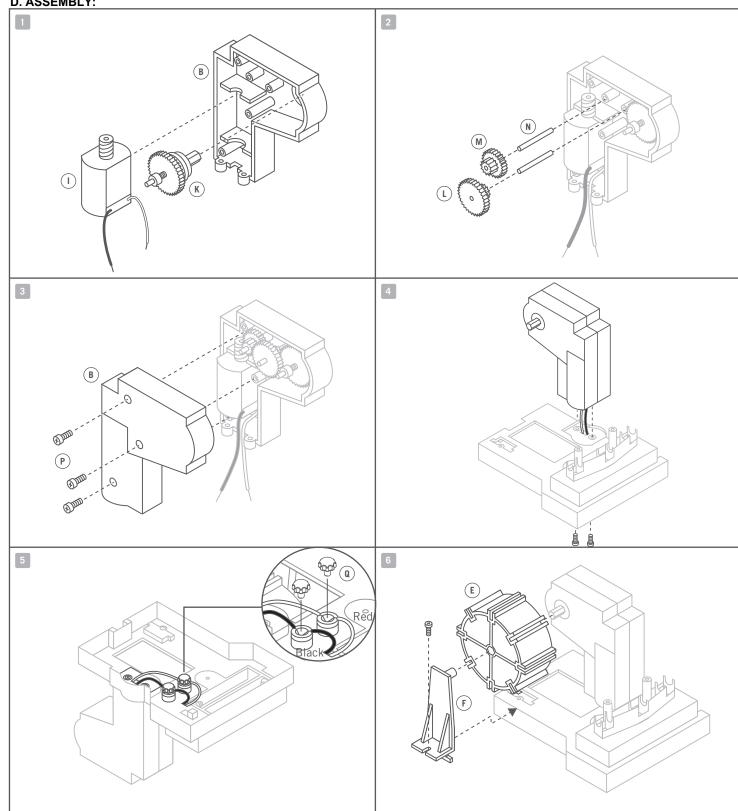
1. Requires two 1.5V AAA batteries (not included). 2. For best results, always use fresh batteries. 3. Make sure you insert the batteries with the correct polarities. 4. Remove the batteries from the kit when not in use. 5. Replace exhausted batteries straight away to avoid possible damage to the kit. 6. Rechargeable batteries must be removed from the kit before recharging. 7. Rechargeable batteries should be recharged under adult supervision. 8. Make sure that the supply terminals in the battery case are not short circuited. 9. Do not attempt to recharge non-rechargeable batteries. 10. Do not mix old and new batteries. 11. Do not mix alkaline, standard (carbon-zinc), or rechargeable batteries.

C. CONTENTS:

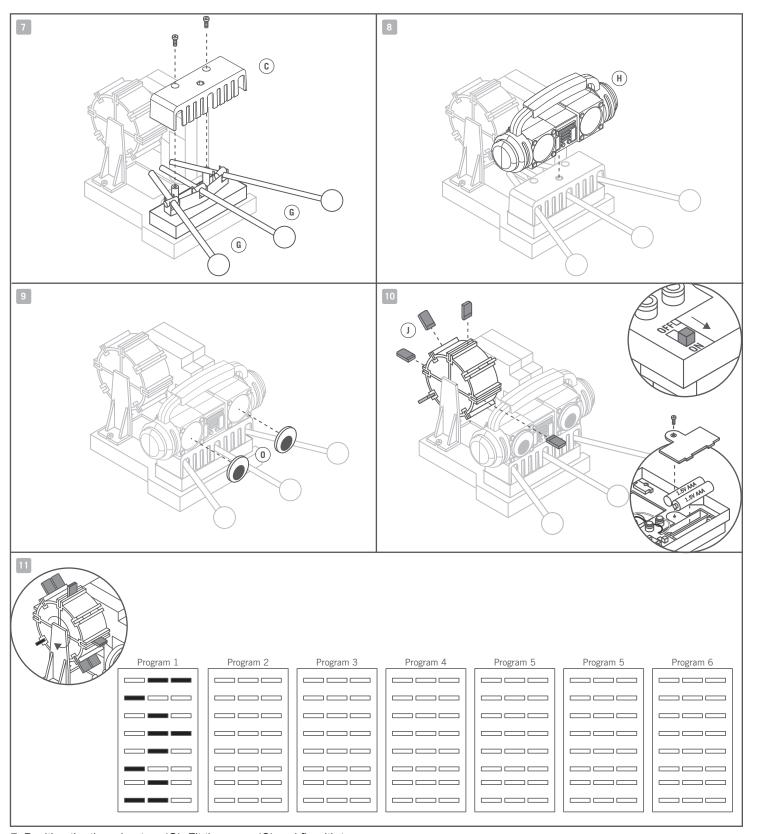


Part A: Base, B: Gearbox Side x 2, C: Cover, D: Battery cover, E: Cylinder, F: Cylinder support, G: Beaters x 3, H: Boombox head, I: Motor, J: Peg set x 2, K: Clutch assembly, L: Large compound gear, M: Small compound gear, N: Axles x 2, O: Eye x 2, P: Screws x 9. Q: Wire cap x 2. Also required, but not included in the kit: a small crosshead screwdriver, two 1.5V AAA batteries.

D. ASSEMBLY:



- 1. Put the motor (I) and clutch (K) assembly into the side of the gearbox (B).
- 2. Fit the two axles (N) and the small compound gear (M) and large compound gear (L) as shown. Add some lubricants, cooking oil or lotion from home, to the teeth of the gears.
- 3. Carefully fit the other side of the gearbox (B) and fix with 3 screws. (Remarks: Position the motor wires as shown.)
- 4. Pass the two wires through the central hole. Fix the gearbox to the base (A) with two screws.
- 5. Fit the ends of the two red wires into the socket and fit a cap (Q) to secure them. Repeat with the black wires.
- 6. Fit the cylinder (E) to the clutch. Fit the cylinder support (F) to the cylinder and the base and fix with a screw.



- 7. Position the three beaters (G). Fit the cover (C) and fix with two screws.
- 8. Place the boombox head (H) onto the cover.
- 9. Stick the eyes (O) onto the boombox.
- 10. Detach the pegs (J) from the frame. Position them on the cylinder (slide to remove). Read the Use of Batteries information (Section B). Fit two batteries, following the battery instructions. Fit the battery cover (D) and fix with a screw. The ON/OFF switch is under the base next to the battery compartment.
- 11. Arrange the pegs on the cylinder to create a drum rhythm that you like. You can record a tab sequence on the program charts so that you can reprogram your Drummer to play it again.

Congratulations, you are now a programmer! As you fit the tabs into the cylinder, you are programming your Drummer Robot to play as you want it to. When you alter the position of the tabs you are reprogramming the Drummer to play a different sequence. Similar mechanisms were developed many years ago to control machines in factories, and these devices were some of the first 'computers'. Modern computers involve programming millions of tiny electrical charges. Each electrical charge acts like one of the tabs on your Drummer and causes something to happen, like changing the colour of a pixel on your screen!