

FOLLOW ME

SOUND DETECTING ROBOT

Assembly and Instruction Manual

FOLLOW ME

1

Product Introduction:

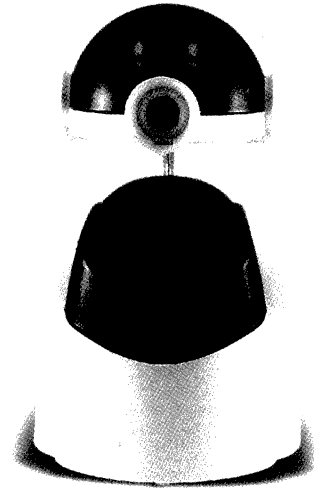
This interesting Sound Detecting Robot Kit has 4 built-in microphones that detect the sound source and in turn the robot will turn and move accordingly. Clap and the robot will turn in that direction and move towards the sound. Clap again from a different position and the robot will turn and follow if clapping is continued.



CAUTION NEEDED

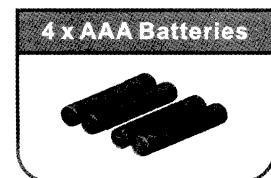
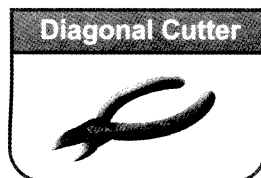
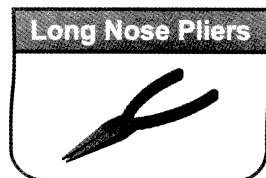
Power source required:

4 x "AAA" 1.5V batteries (not included)



2

Tools You May Need:



3

Mechanical Parts List:

P1	Motor	
	Qty	
		1

P2	Motor	
	Qty	
		1

P3	Pinion Gear 10T	
	Qty	
		2

P4	Face Gear 36T/14T	
	Qty	
		2 (White)


P5	Gear 36T/14T	
	Qty	
		2 (Green)


P6	Gear 36T/14T	
	Qty	
		2 (Red)


P7	Round Shaft With Gear 36T/0T	
	Qty	
		2 (White)


P8	Post	
	Qty	
		2


P9	Round Shaft	
	Qty	
		1 (2x40mm)


P10	Eyelet	
	Qty	
		4


P11	Tapping Screw	
	Qty	
		8 (2.6x14mm)

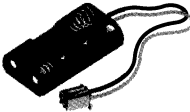
P12	Tapping Screw With Washer	
	Qty	
		2 (2.6x6mm)

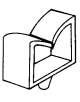
P13	Tapping Screw	
	Qty	
		9 (2.6x6mm)

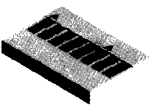
P14	Tapping Screw	
	Qty	
		2 (2.6x7mm)

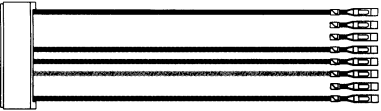
P15	Wheel	
	Qty	
		2


P16	Tire	
	Qty	
		2


P17	Battery Holder	
	Qty	
		2

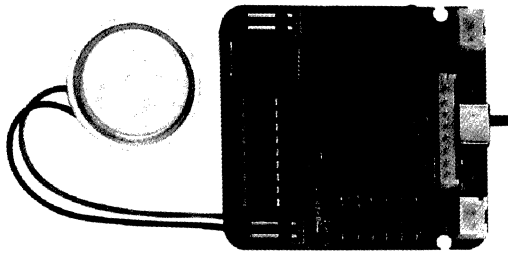
P18	Wire Saddle	
	Qty	
		1

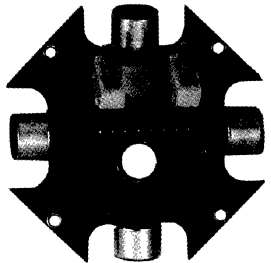
P19	8P Black Housing	
	Qty	
		1

P20	Wires With Housing	
	Qty	
		1

P21	Sponge	
	Qty	
		1

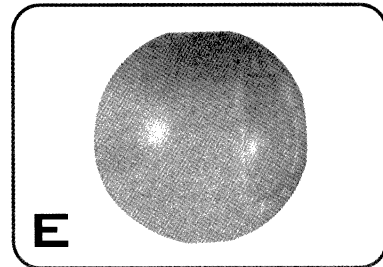
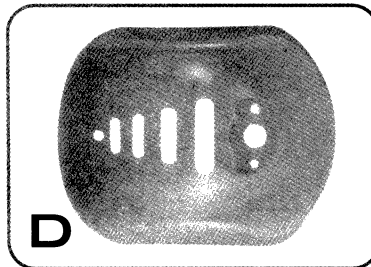
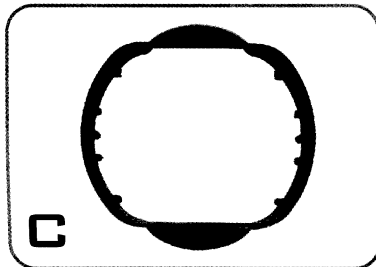
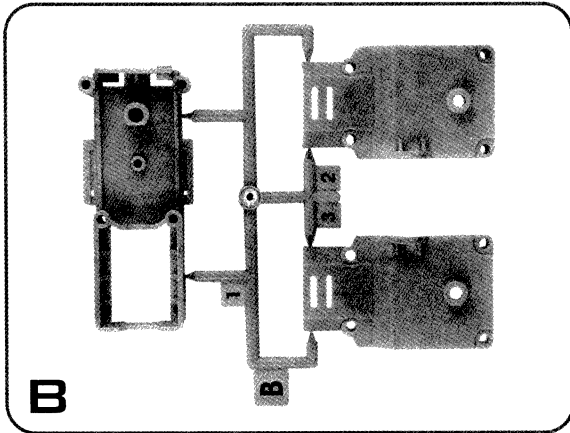
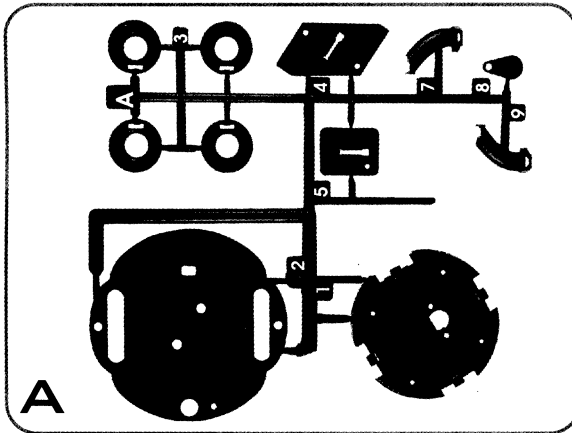
P22	Steel Ball	
	Qty	
		1

P23	Finished PCB
	

P24	Finished PCB
	

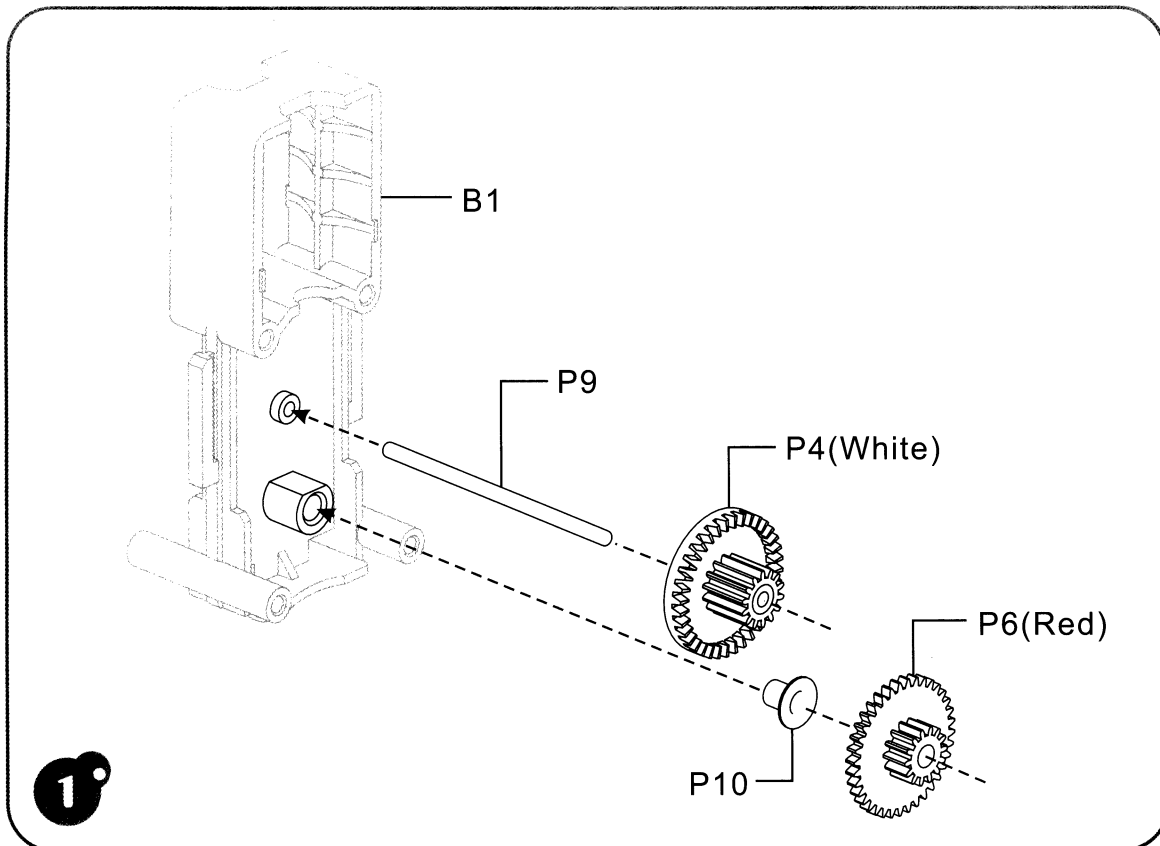
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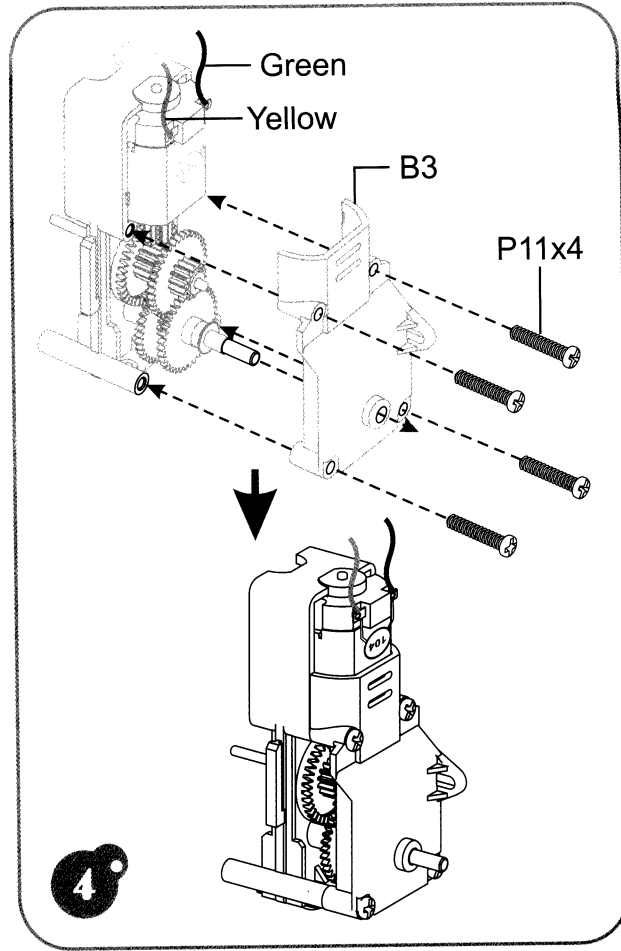
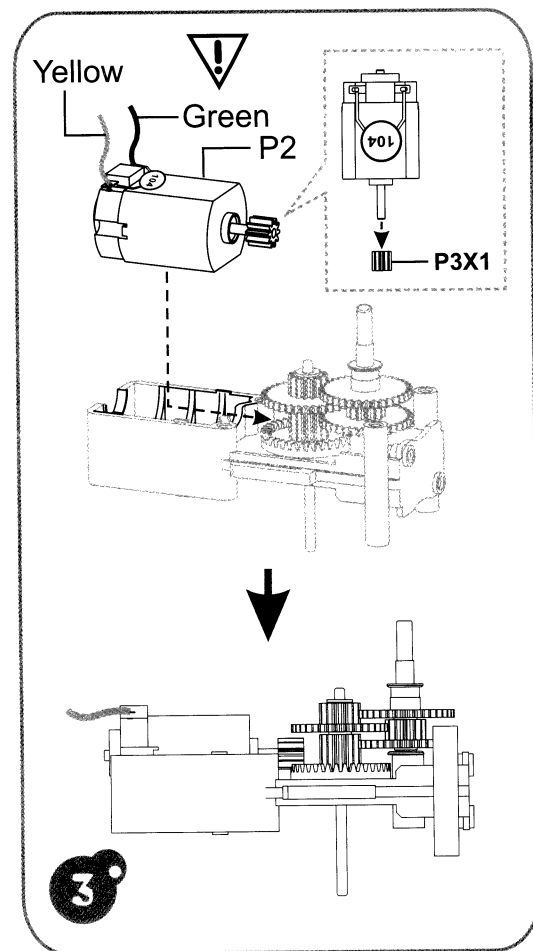
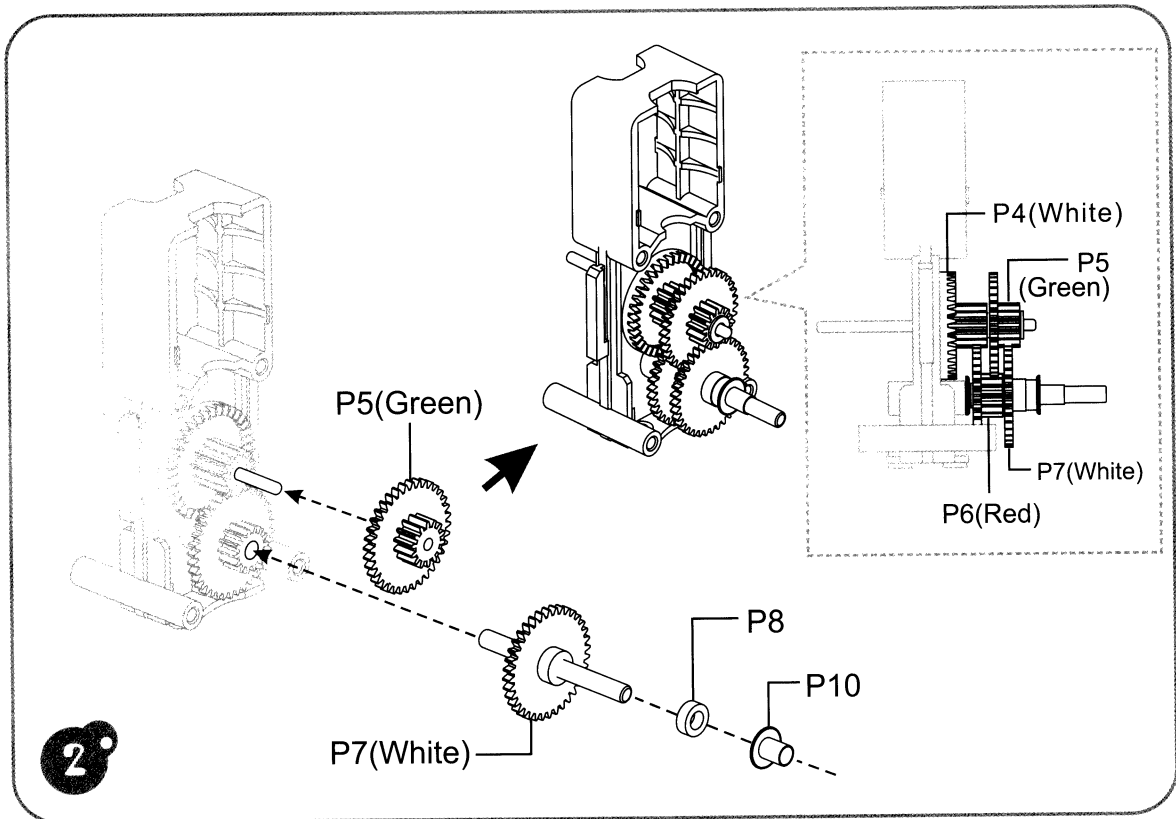
Plastic Parts:

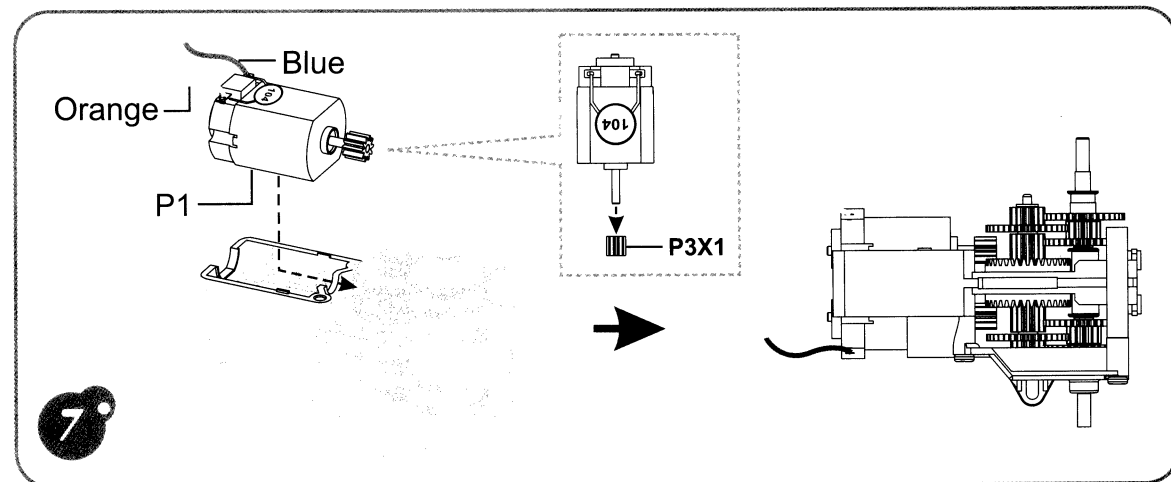
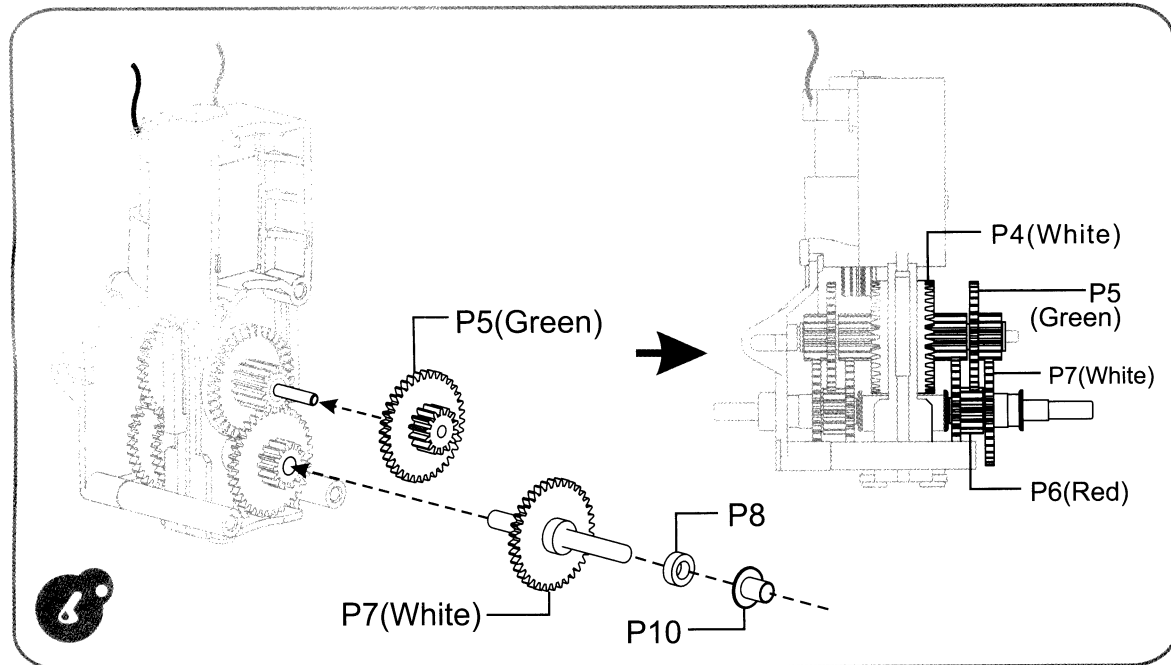
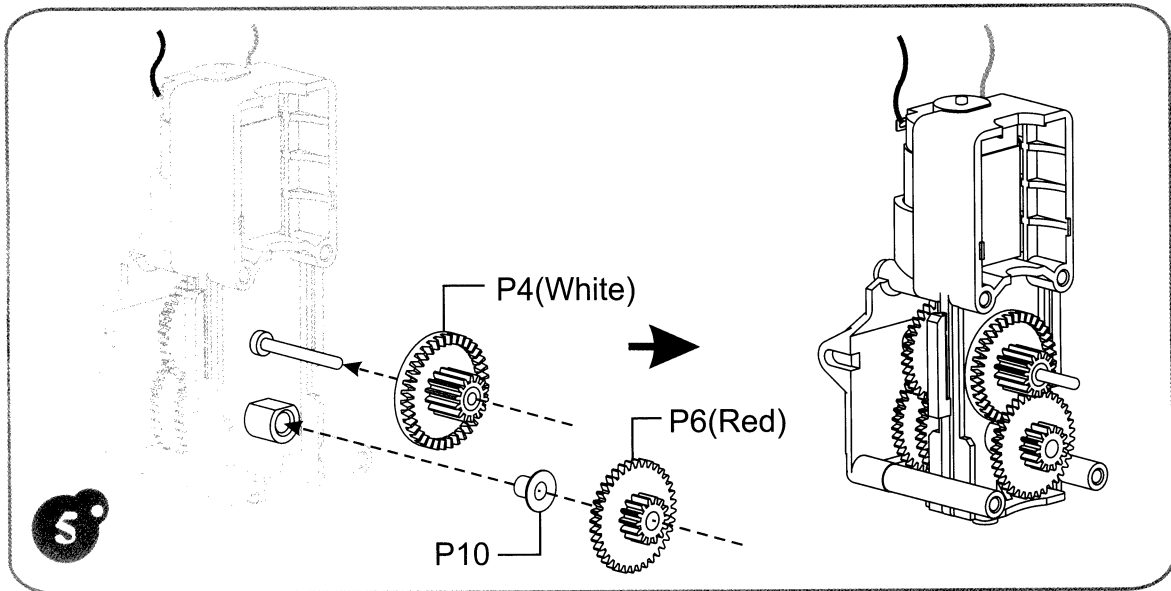


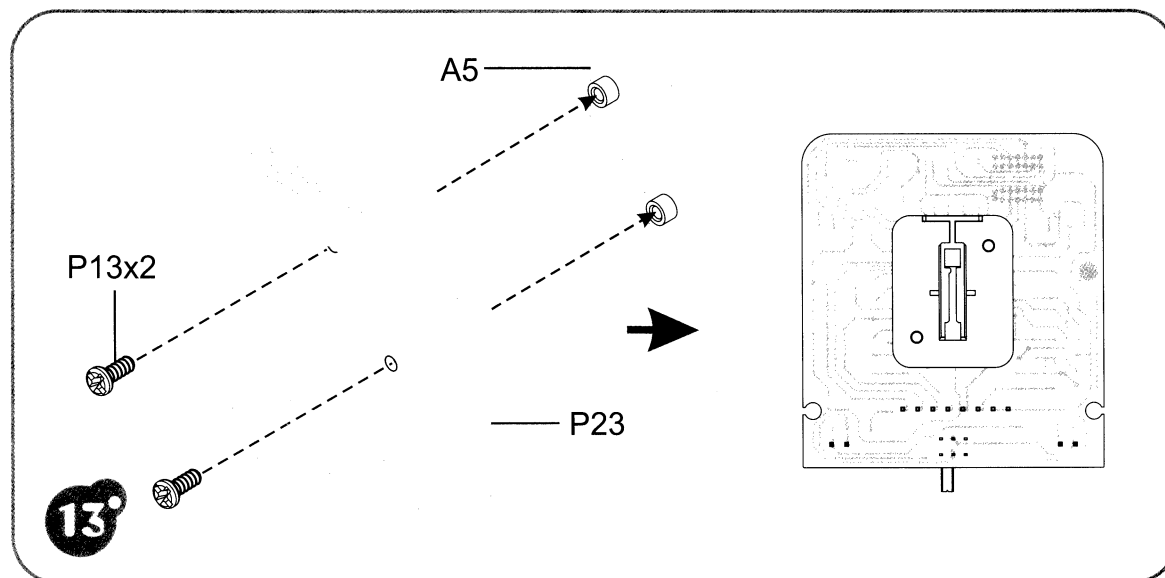
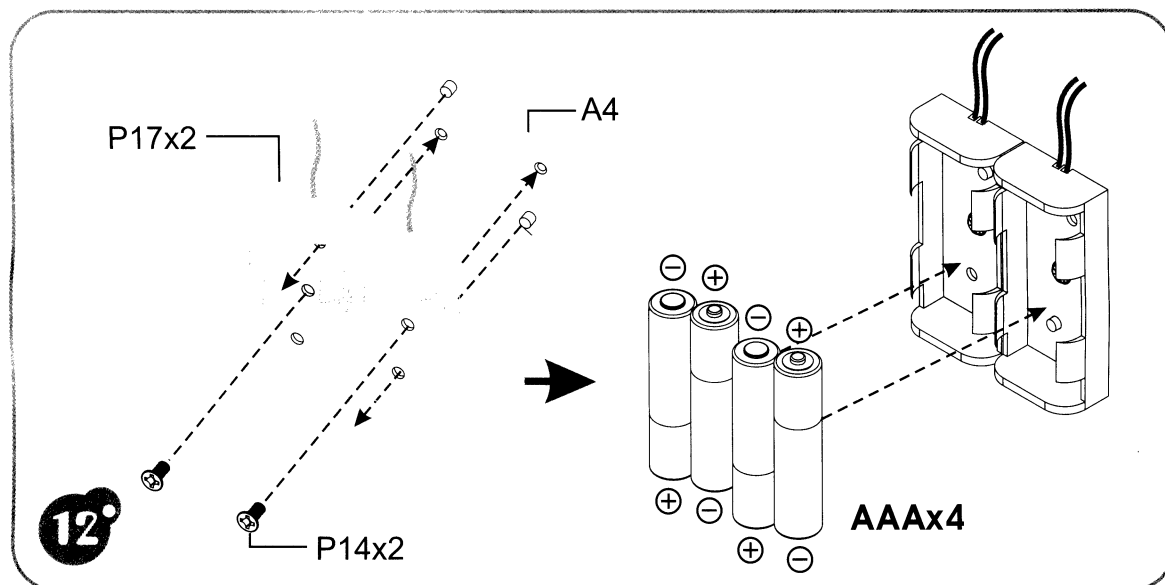
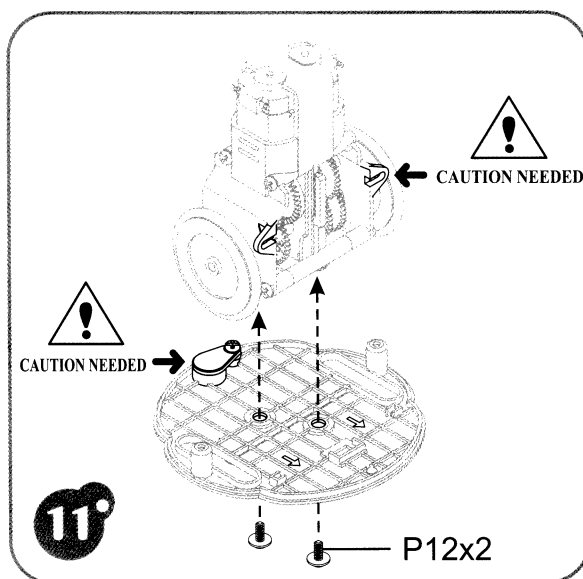
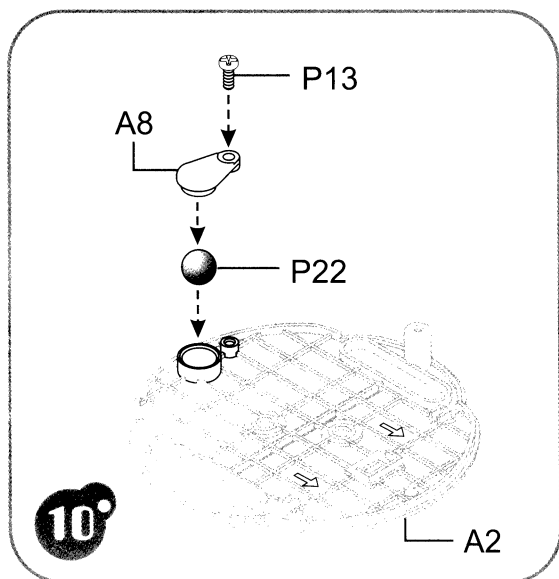
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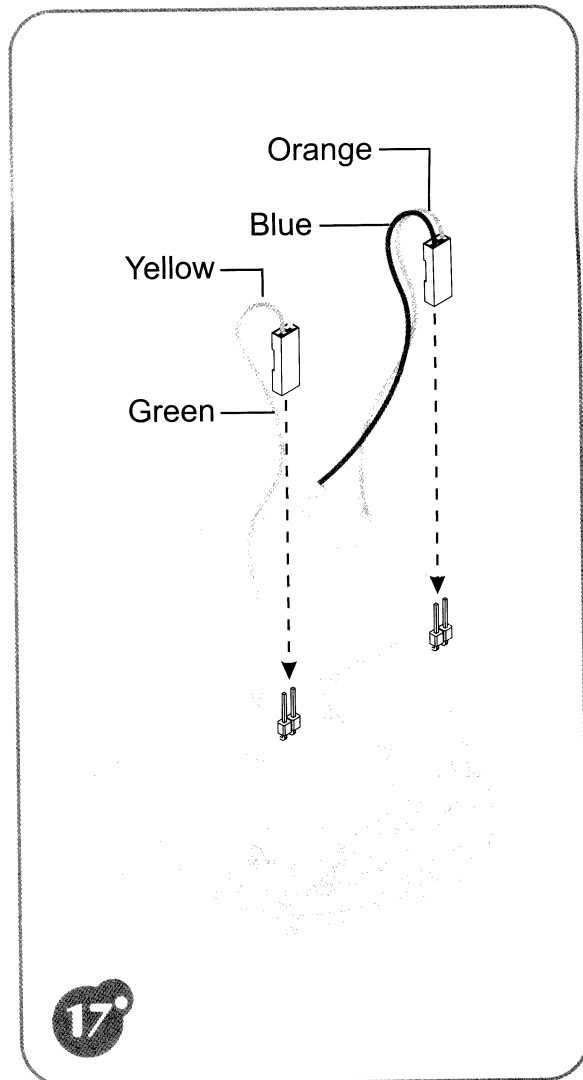
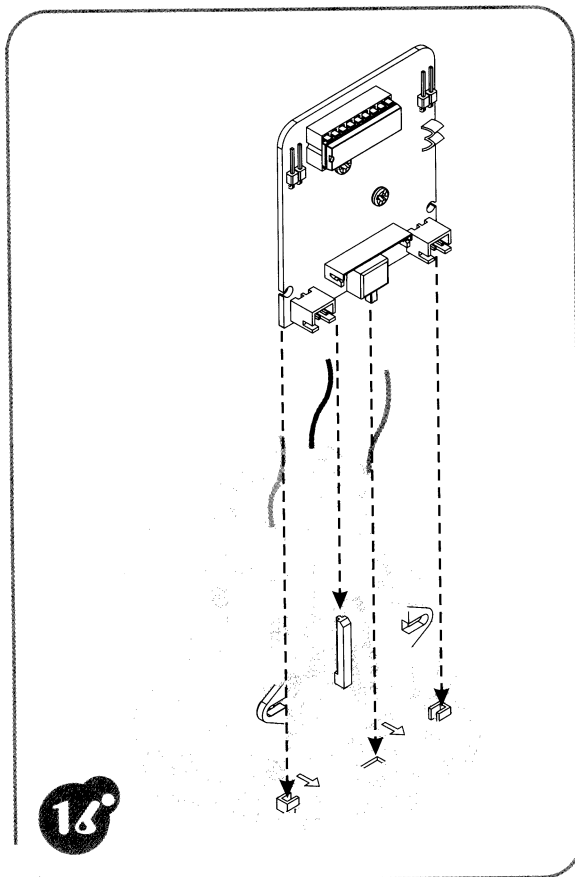
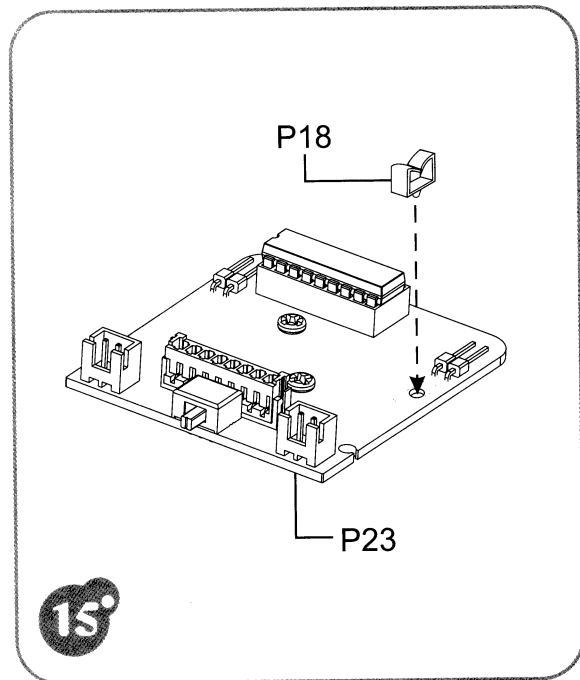
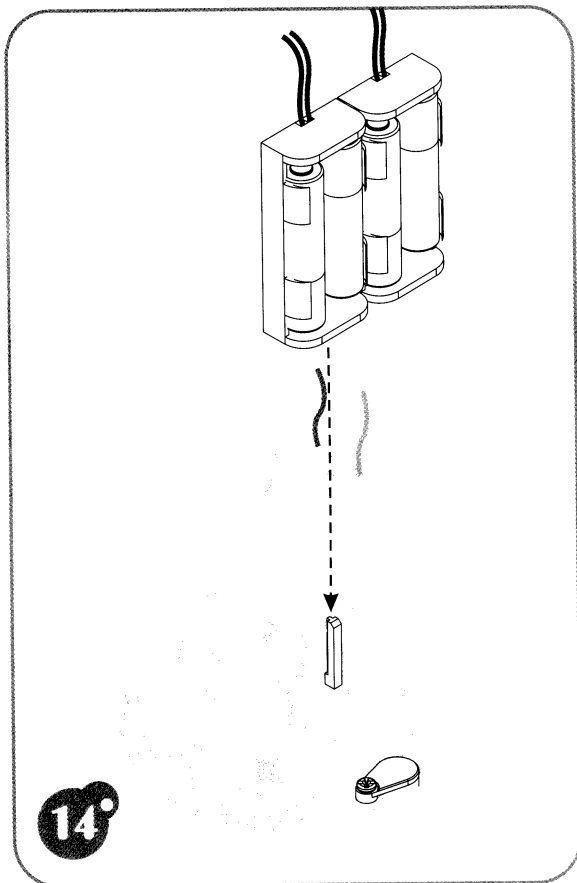
Mechanical Assembly:

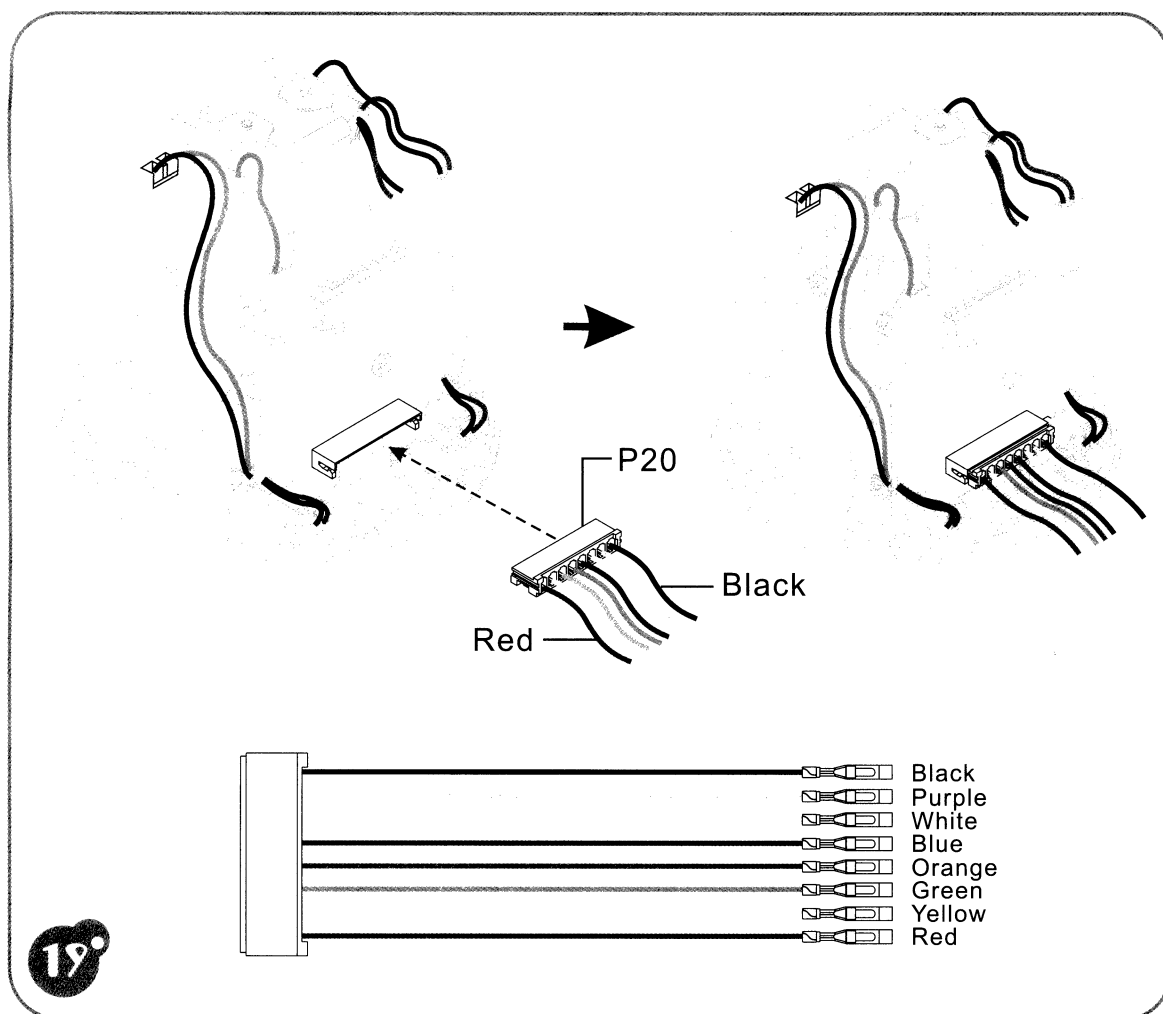
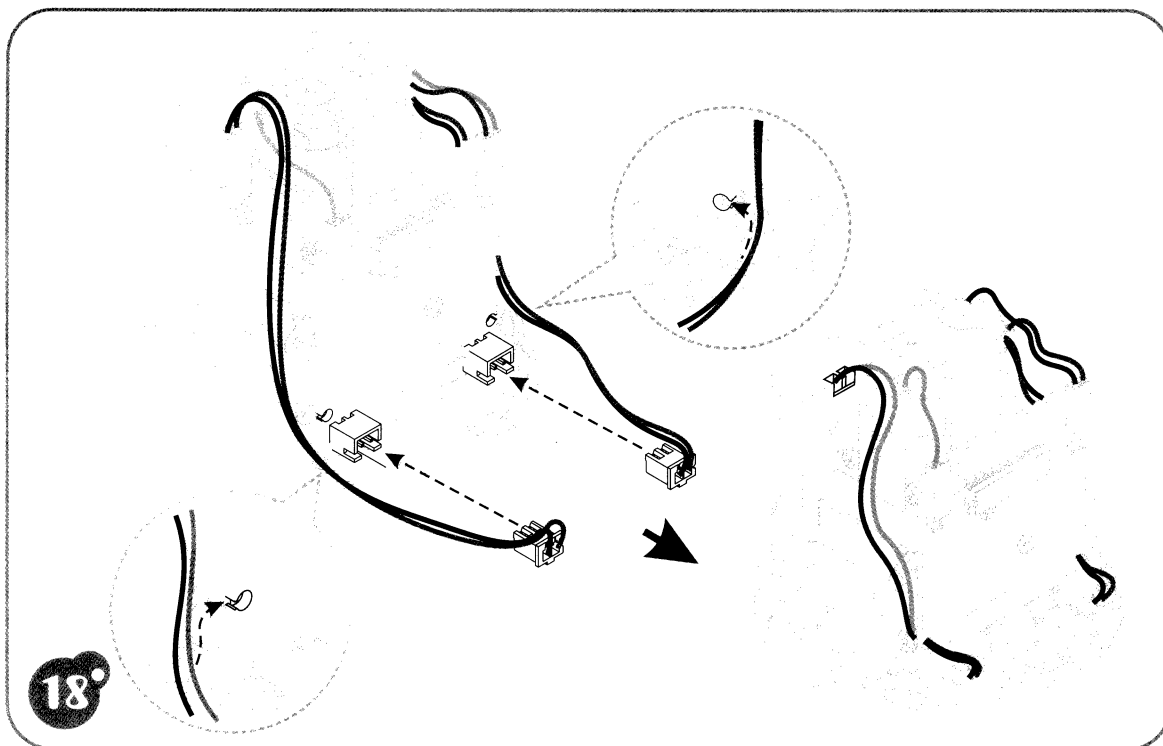


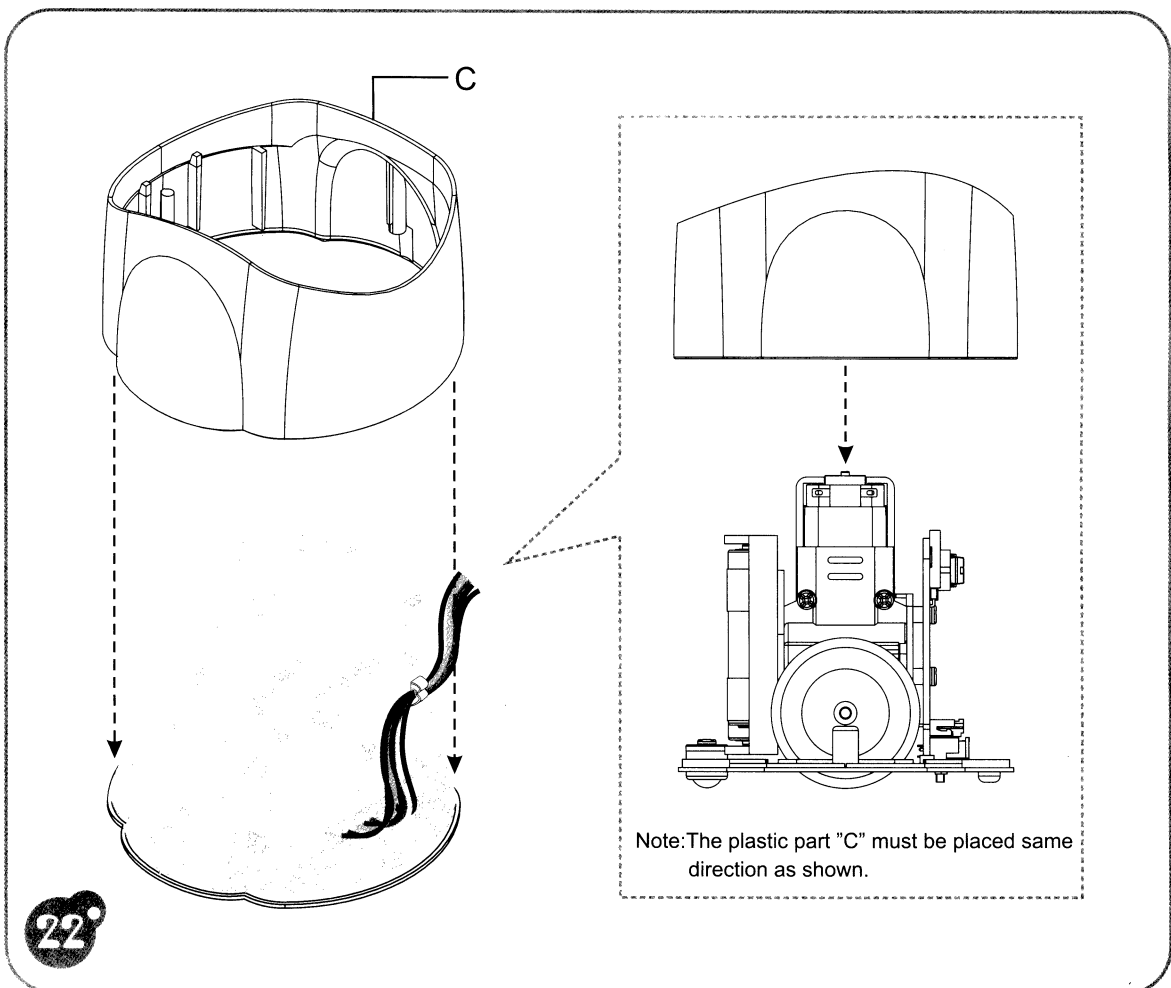
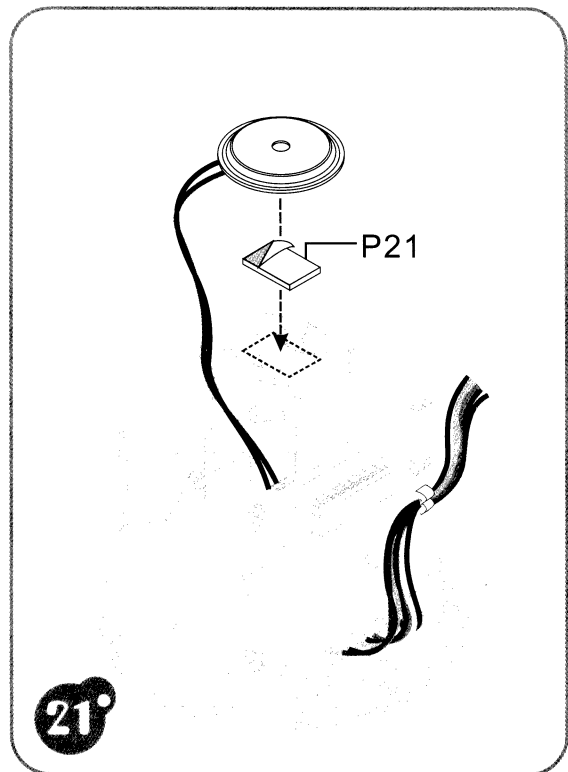
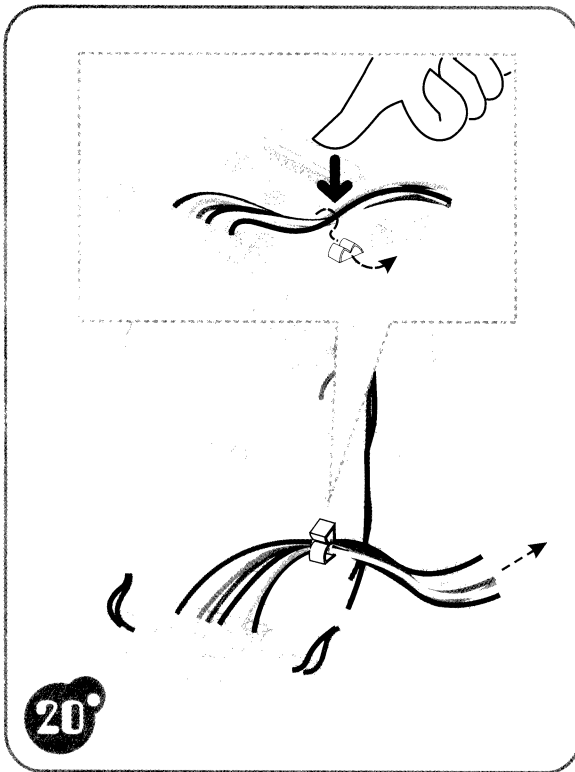


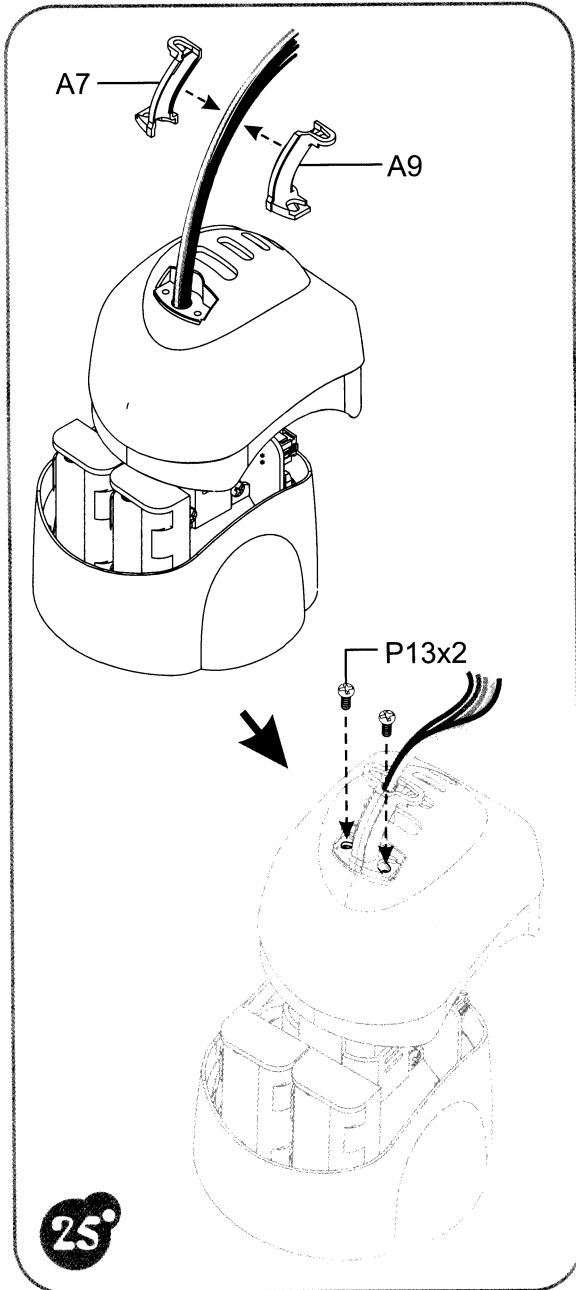
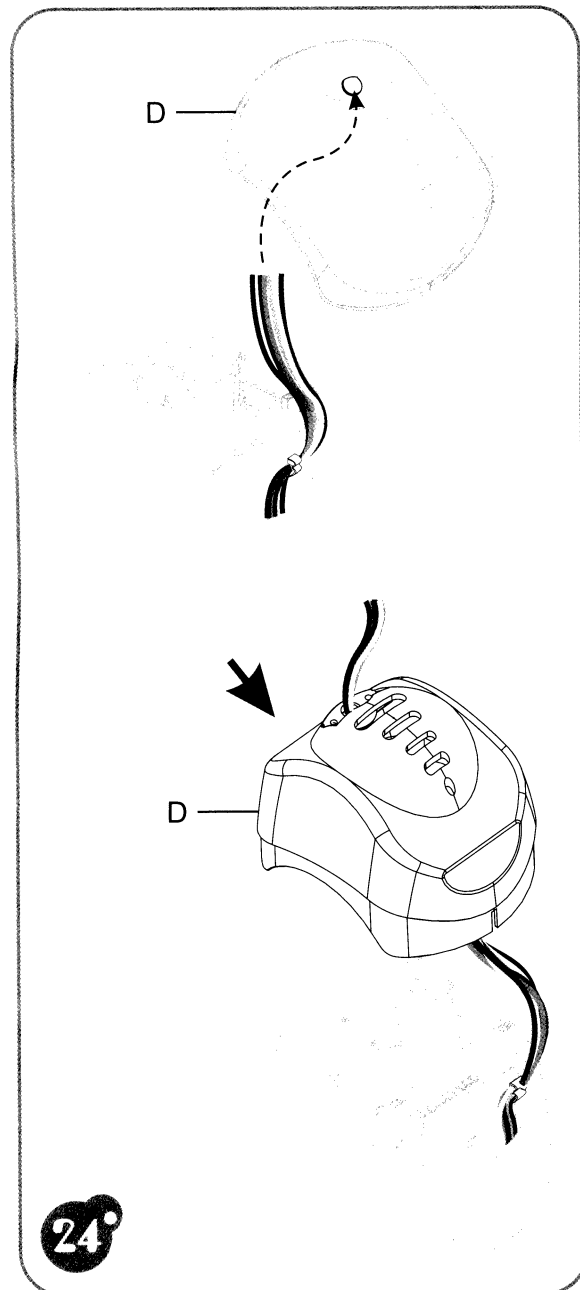
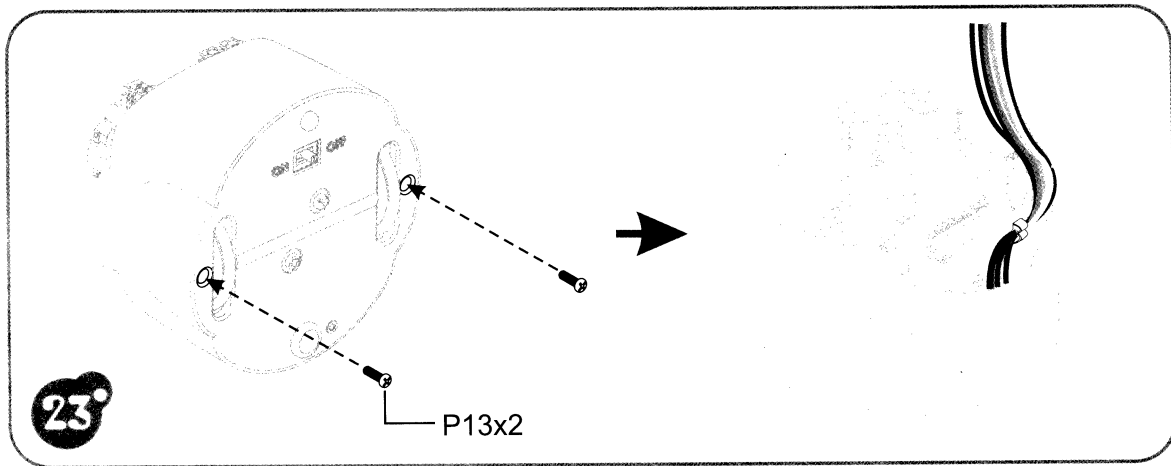


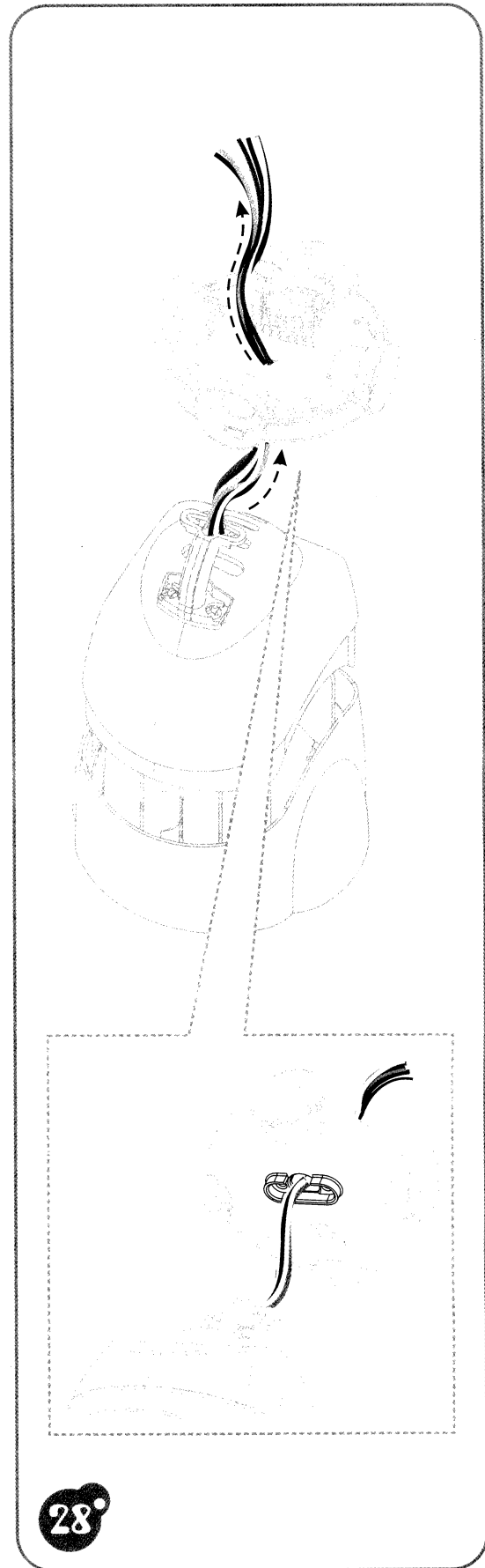
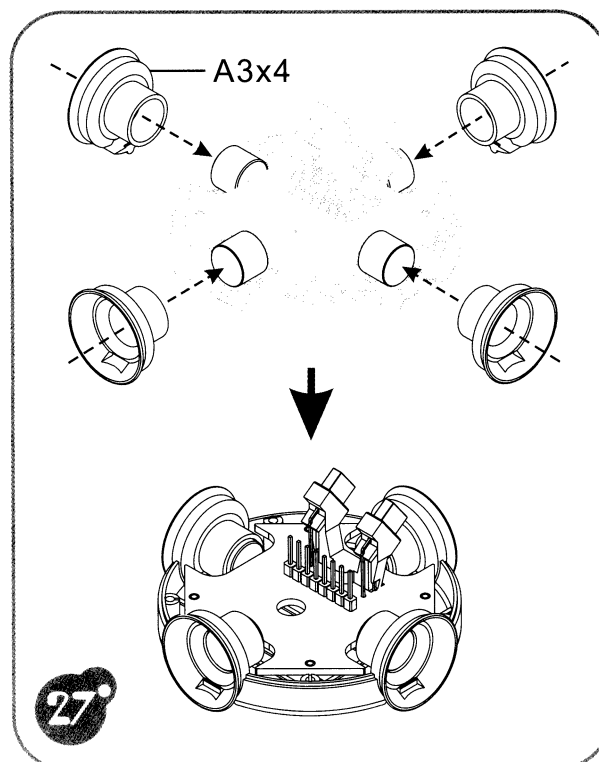
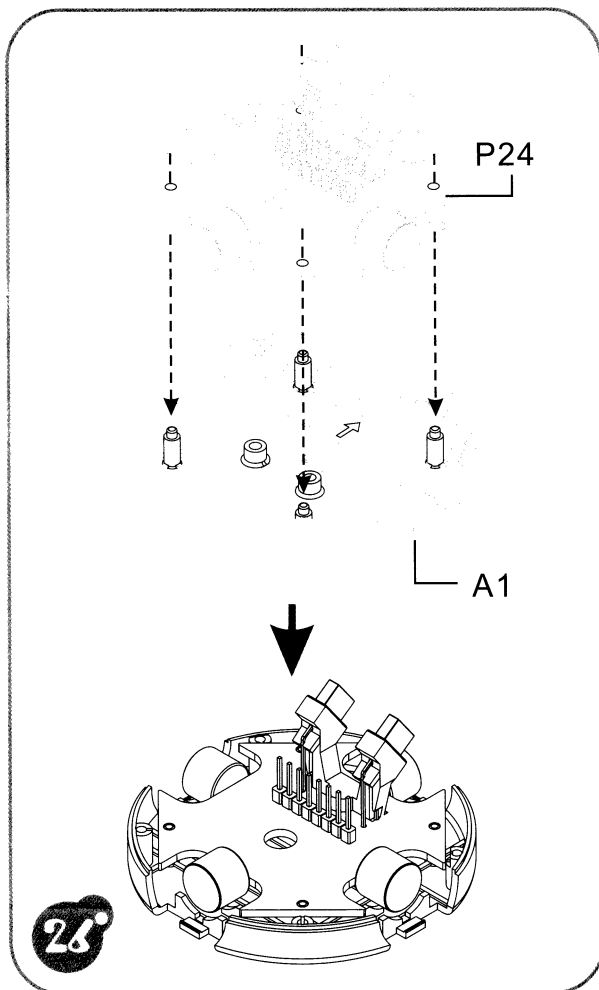


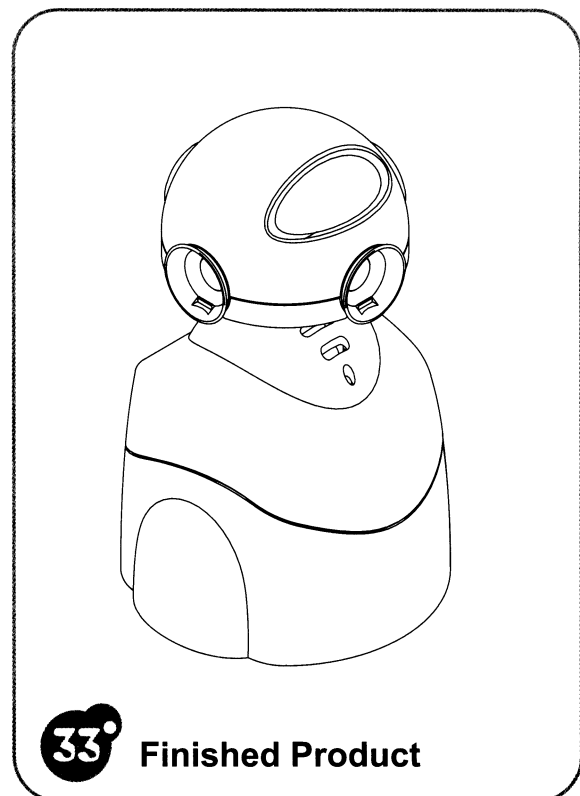
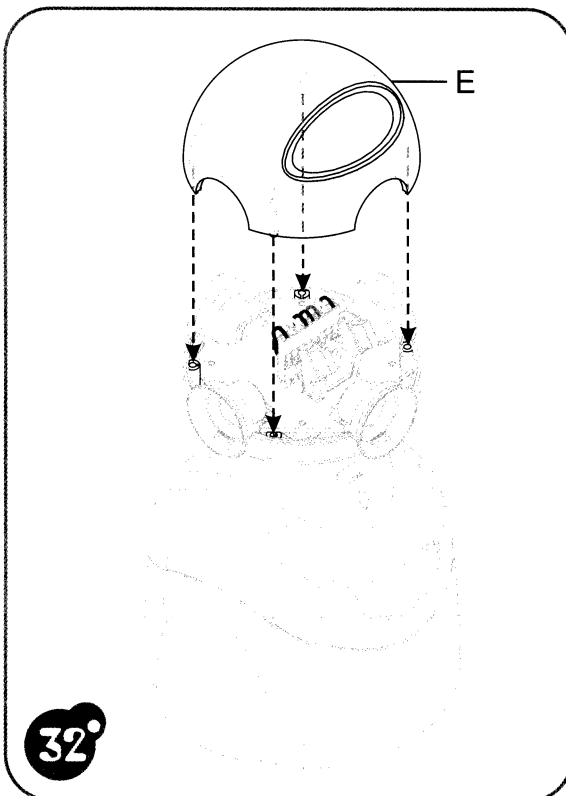
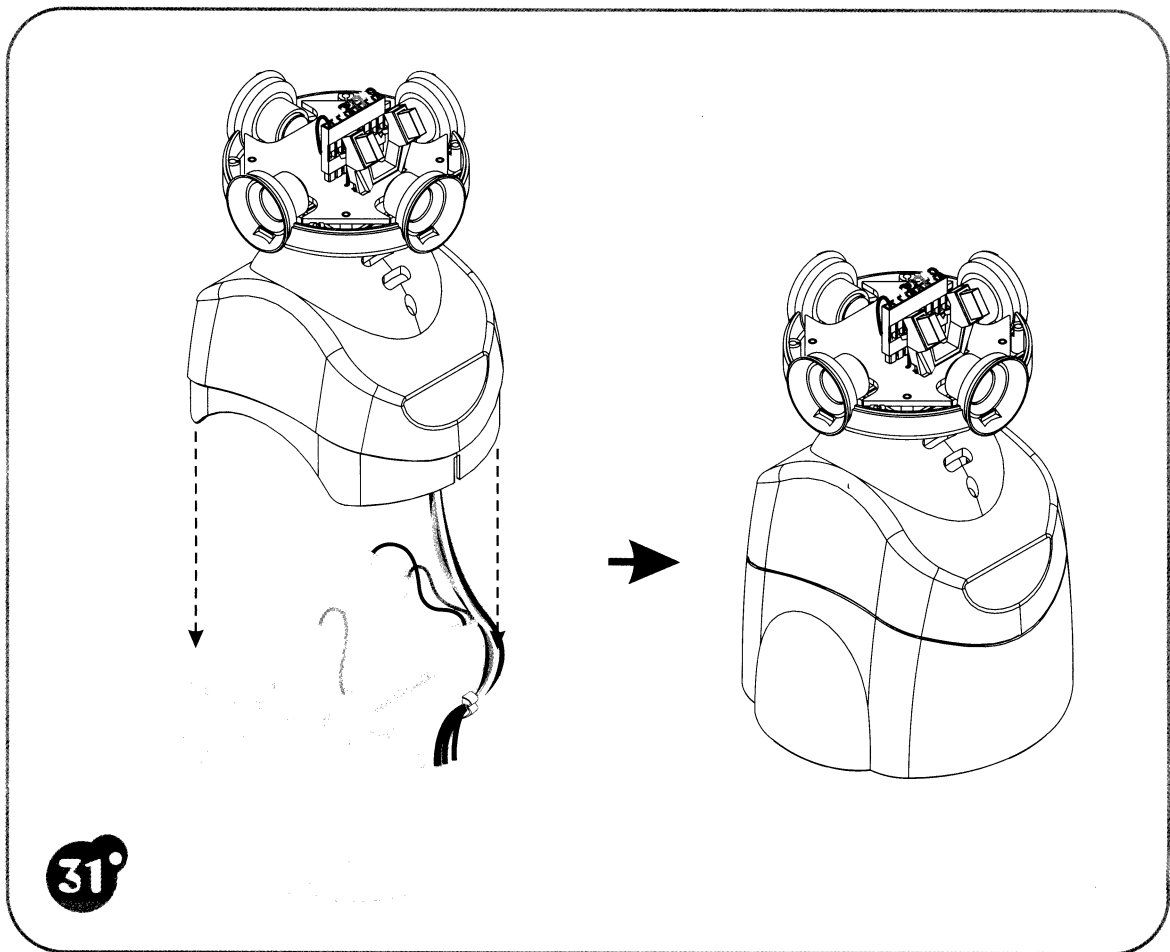


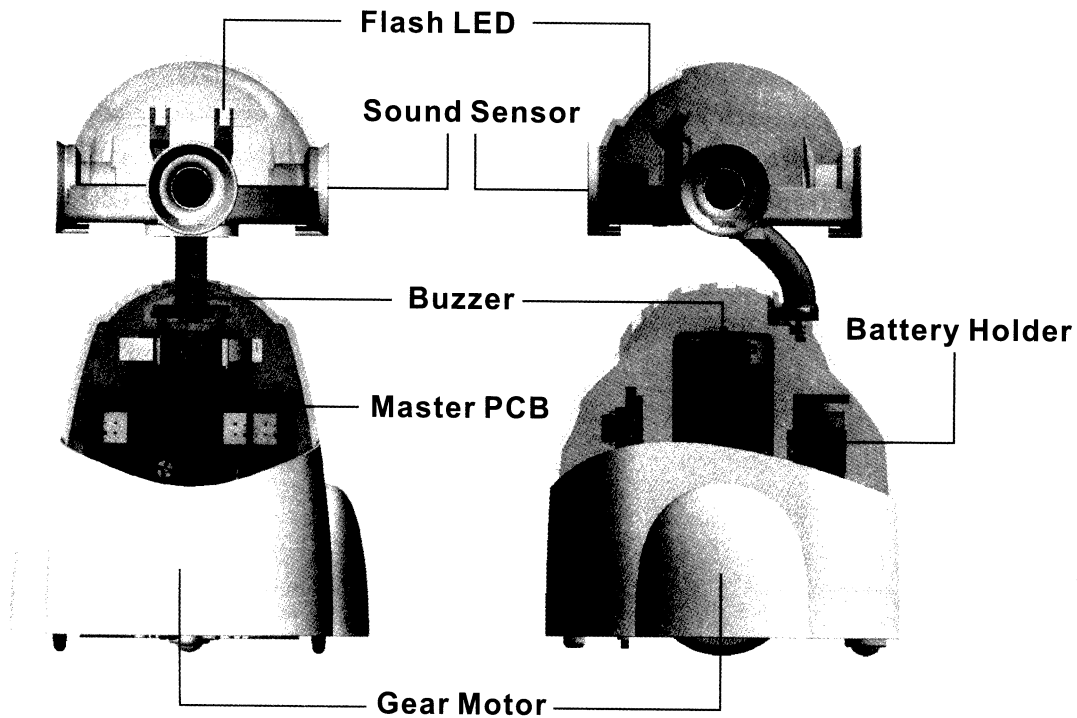












6 How It Works:

Turn the switch to 'ON', Robot's eyes will start flashing, play 'Do, Re, Mi...' and turn right and left. By clapping around the robot, it will detect which position the sound is coming from and turn its way towards it.

Robot's eyes will flash and sound "beep" if there is no further sound within 10 seconds.

If the Robot does not receive a signal within a minute, it will play its own routine (turn left first and come back, then turn right and come back).

If the Robot does not receive a signal within one and half minutes, it will sound two 'beeps', the eyes will become dark and then go into its sleeping mode. To awake the Robot clap continuously until its eyes light-up slowly returning the robot to its normal switch-on mode.

Note: Depending on the surrounding environment, the robot will only respond to clapping over a certain distance, eg: if the clapping sound echo's across a room or the robot is positioned over its effective distance, then the robot will not respond. The effective distance is within 1 meter.

7 Trouble Shooting:

1. If the Robot does not work check the following:
 - a) The 2 pc 'BAT' white connectors are making correct contact
 - b) Observing battery polarity (+ve and -ve)
 - c) The power switch is in the ON position.
 - d) Make sure the wire colours on the 8 pin connectors are in their position.
(As shown on the 2PCBs)

2. If the eyes (LED's) flash but the Robot does not respond correctly to clapping:
- Check if the 2 connectors "R-motor" and "L-motor" are correctly connected.
 - Make sure the wire colours are the same as what is shown on the PCB.
 - Make sure the head PCB is correctly mounted ie: the eyes (green LED's) are towards the front.
 - Make sure the wire colours for the 8 pin connector are correctly positioned.
(As shown on the 2 PCBs)

8 Circuit Diagram:

