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+ Movie

The kits come with the parts needed to make the model shown.

Note - One AA battery required (not supplied)

If you have a paper laminator the top can be laminated to make it look better and tougher.

Fun Things you can achieve

Making skills - Assembly and constructions skills

Designing - If you want you can alter the design given or design and make a new top - e.g. Design a new racing top using a computer..

Electrics and Mechanisms - Learn how to connect up and use a basic electric circuit and use a mechanical drive to reduce the speed of the electric motor which turns too fast as supplied.



Testing / Competition

Hold a competition to see which car is the best in the following categories:-

- a) Fastest,
- b) Most original
- c) Goes in straightest line.

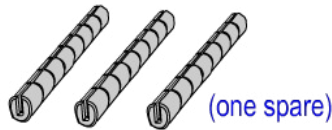
Before adding the 'motor drive' a test can be carried out to see which can freewheel the furthest starting from the top of a given slope.



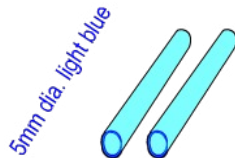
4 X Blue clip connector



3 X Multiblocks (green)
IMPORTANT - Keep ONE uncut



3 X 4mm grey snap for axles



2 X 200mm long tubes

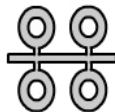
5mm dia



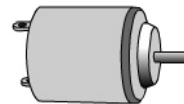
1 x orange dayglow tube



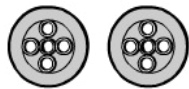
4 X steel washers (4mm)



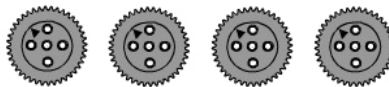
4 X 4mm grey collars



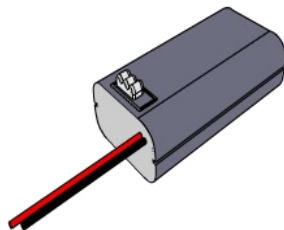
1 x Fast small electric motor



2 X 28 mm dia. wheels



4 X 40mm dia. wheel/ gears



1 x 1.5volt AA battery holder with switch
(one battery needed) default

OR

1 x 3V volt AA battery holder with switch
for faster racer- two batteries needed)



3 elastic bands

CARD TOP
(OR



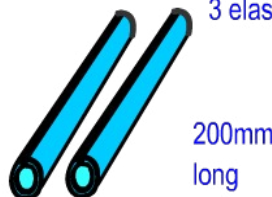
For making Instructions see web www.kre8.com



2 X 5mm dia. blue slit rods



1 x 5mm dia. blue slit rods



2 X 5mm dia. blue slit rods

Tools

Snips

Use to cut Kre8 connector hinges, plastic sheet, light blue tubing etc

Note - Scissors are not very satisfactory as they do not have serrated blades.

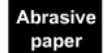


Scissors

Use to cut the card top

Emery Cloth

Use fine 'emery cloth' or other 'abrasive paper' to round and smooth the slit rod or blue tube ends to make assembly easier.



Pencil and Rule

Use to mark lengths of blue tube or slit rods before cutting. Can also be used on plastic sheet before shapes are cut out.



NOTE - You can use the rule at the bottom of the pages of making instructions.

SAFETY

Keep hands away from sharp edge when drilling

Stick glue and clear tape to fix decoration part. and clear tape to hold card shape to long slit rod

Kre8 Tube Cutter

Not needed for this kit but is useful if the slit rods need to be cut by 'scoring' than 'snapping off' the rods to length



3

Kre8 Electric Racer - Making 1

Tip - Visit www.kre8.com for movies and other support



To Make

Follow the 'step by step' instructions provided and adapt as you want.

NOTES

- (1) **ONLY** cut the connectors when needed.
- (2) Use a **ruler** for measuring (bottom of page)
- (3) **For easier assembly** - smooth and round the rod ends with abrasive paper then push and twist the rods into the connectors.

1

X2

cut and trim just 6 connector blocks needed

Leave the last connector block **UNCUT** - see step 10

Slide three green connectors (a) along a 200mm long blue slit rod (b) and add on single blue connector (c) at the end as shown.

2

Add the 80mm long blue slit rods as shown.

3

cut tubes to 55mm.

Add two link pieces made from blue clip connectors (a) and 55mm long light blue tubes (b) as shown.

4

Add a 90mm long light blue tube (a) with two clip connectors (b) added as shown.

5

Parts

a b c

V shape

start finished

Pulley making

a) Place two 28mm wheels face to face (making a 'V' shape) b) join together using 4mm snap grey rods by place rods in holes then snap off.

6

Adding the first axle

Add the pulley just made (a) about 5mm from the end of a 120mm long grey 4mm snap rod (b).

7

Add two 40mm diameter wheels (a) on the same axle (b)

8

Add the 40mm diameter wheels (a) onto the axle made from 100mm long grey snap rod (b).

9

Insert a 20mm long piece of light blue tube (a) into the green connector shown.

10

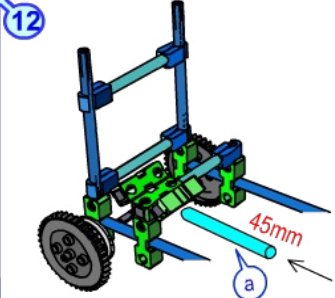
Detail

triple green connector

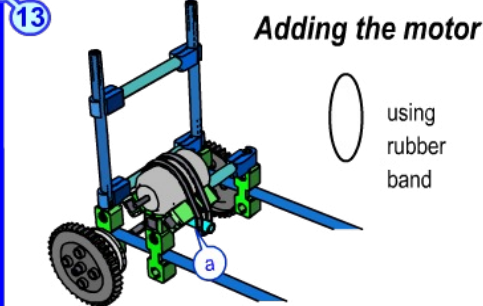
Bend a triple green connector (a) as shown then push it onto the short light blue tube added in the last step.

11

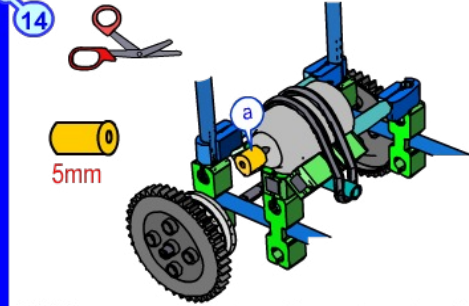
Slide a 45mm long piece of light blue tube (a) into the middle triple green connector (a) and fix the other end with a blue connector (b) using a 20mm long light blue tube (c)



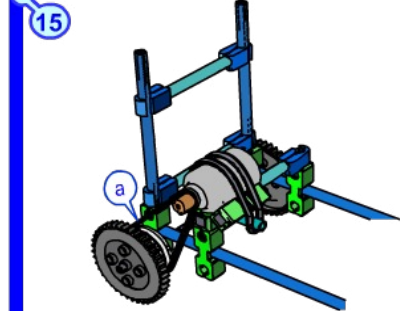
Lift up the green connector sides and push a 45mm long light blue tube (a) into the centre hole of the lower green triple connector.



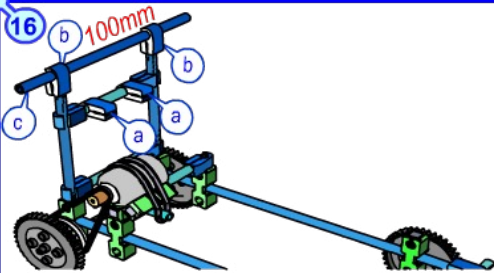
Lay the electric motor on the green triple connector then loop a short rubber band(a) over the motor.



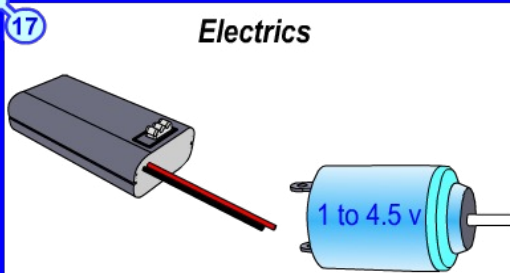
Add 5mm orange motor pulley onto motor drive. Leave room for rubber band behind.



Loop the longer rubber band(a) over the motor pulley.



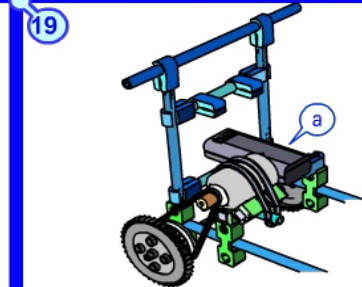
First add two blue connectors(a) as shown then add two more on the ends of the vertical rods(b) before adding the top 100mm slit rod(c).



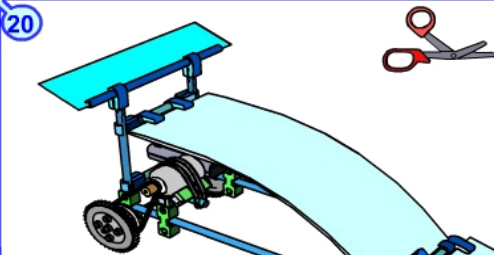
Connect the battery holder wires to the electric motor - step-by-step details next.....

18 Electrics - step-by-step

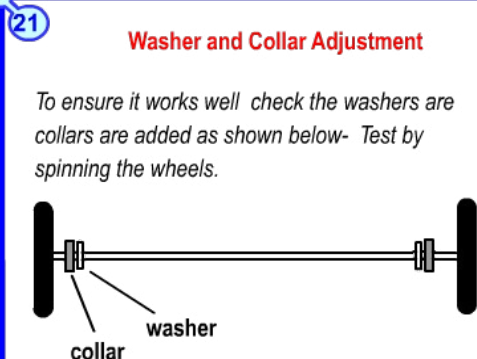
- 1) Strip the plastic covering from the wire about 15mm from the ends.
- 2) Twist the loose wires ends a few times.
- 3) Insert the wires into the motor connector holes.
- 4) Test it goes forwards. (after adding one AA battery)
- 5) If it goes backwards by mistake - switch wires over.
- 6) Fix wires properly - ensure **no** wires touch the metal casing on the motor.



The battery holder (a) can rest on the tubes next to the motor as shown with the switch at the back. It can be fixed in place using the rubber band.



Cut the card top provided following the instructions given then add to your model by sliding parts into the slit and slots as shown.



To ensure it works well check the washers are collars are added as shown below- Test by spinning the wheels.



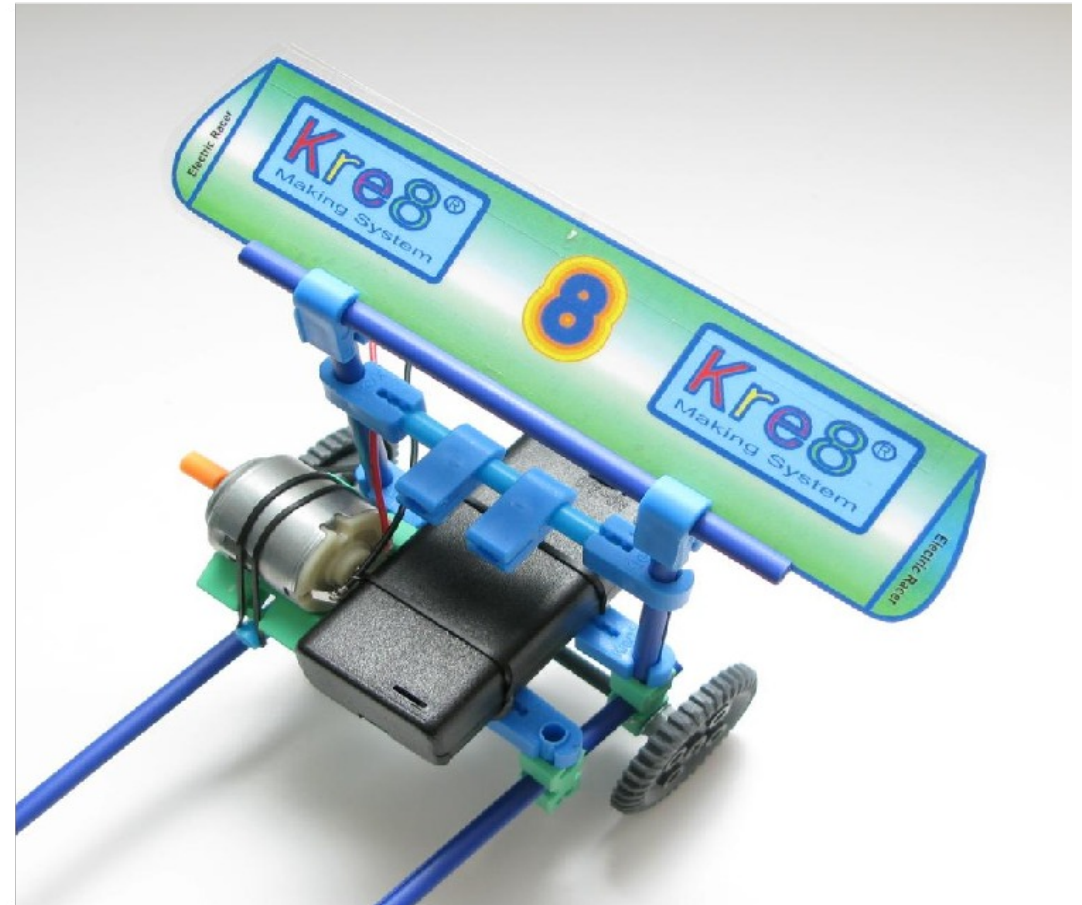
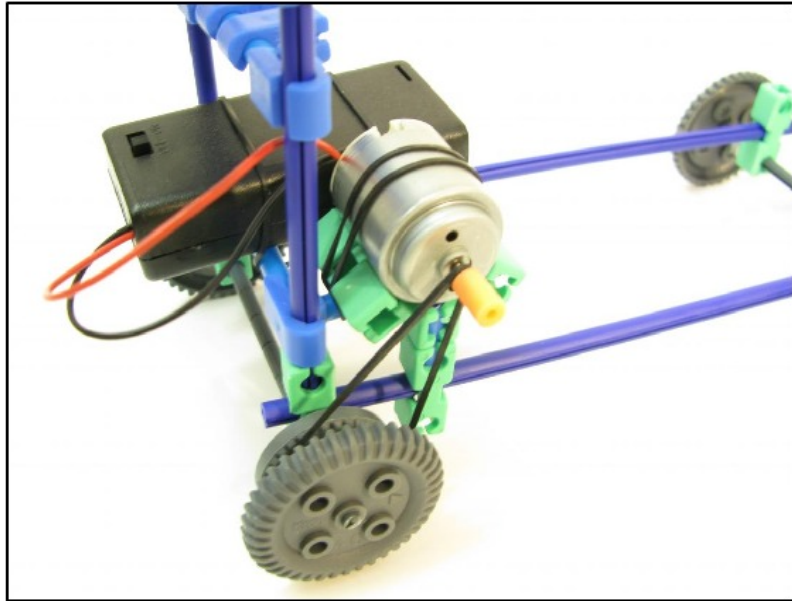
22 Completed Electric Racer

If the decorative parts are too loose in the slots fold clear tape over the edge make laminate a bit thicker.

Turn ON
and Race!

5

Kre8 Electric Racer - Detail Photos



Kre8 Electric Racer Top (laminated)

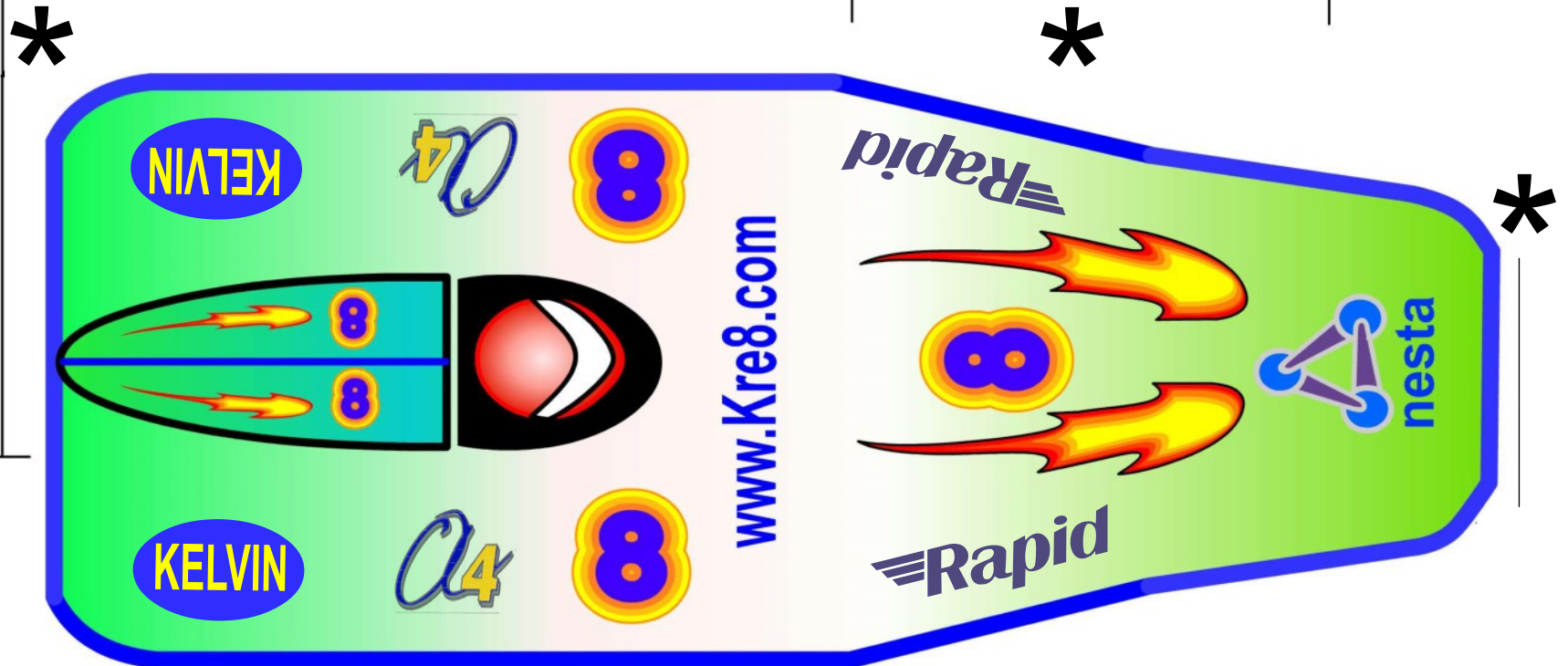
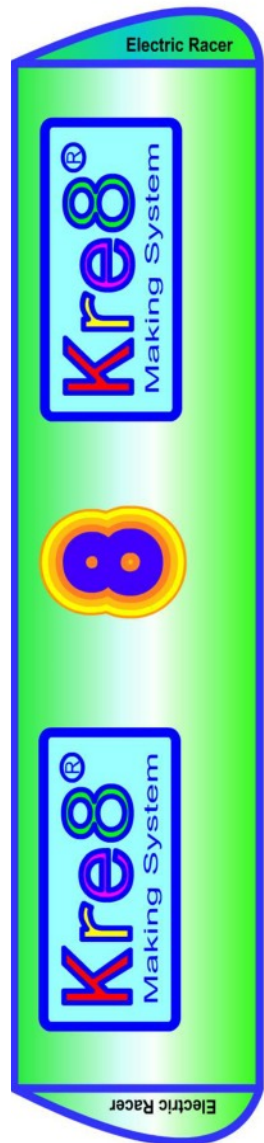
Using this laminated top

(1) Cut out these three shapes

(2) On parts marked * fold **clear adhesive tape** over the edges to thicken the edges until they give a good **tight push fit** in the **Kre8** parts.

Note

Add clear tape after main car has been made



Main body is about 21cm long