



Motorized MECHANIX

ENGINEERING SYSTEM FOR CREATIVE KIDS

5 MODELS

64 PIECES

AGE 7+



Do-it yourself manual

- Read all instructions carefully before constructing.
- Place all the pieces used in a step on the side before starting.

BASIC FITTINGS

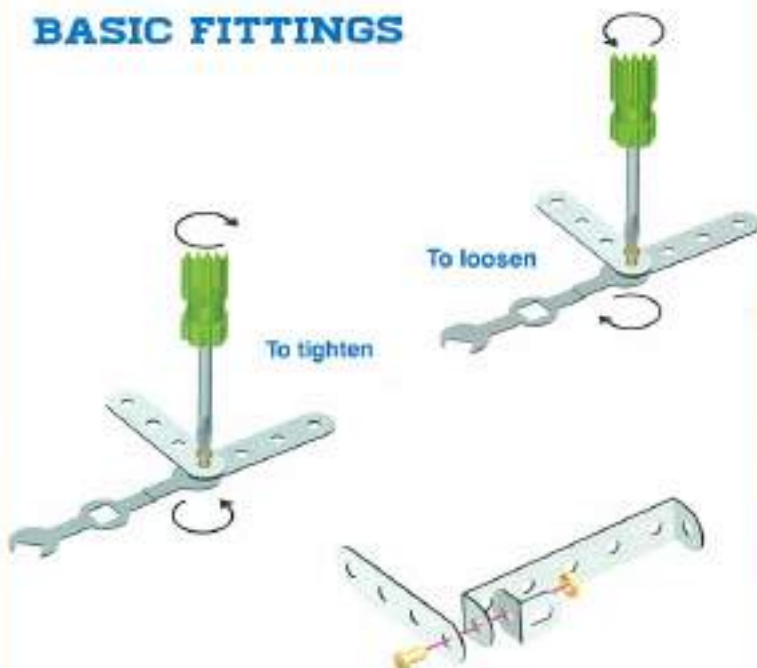
Dear friends!

Zephyr brings yet another international class engineering set of mechanics for you, to have fun & learn.

This set contains 84 pieces, crafted from high quality steel, which are powder coated, superior plastics & selected tools which will be friendly to your little hands so that you have fun while creating models.

You can use these parts over & over again to create at least 5 models and may be many more as far as your imagination flies.

So come on get started!



When not in use:

- Make sure switch is in center-off position.
- Always remove the batteries during storage.



Do you know what is the stick with a knob near the driver in a car? It's a gear lever! But what are gears used for? Two things.

1. To change speed
2. To increase or decrease power.

Gears are very interesting because if you increase speed with a gear, the power reduces and if you decrease speed, the power increases. And this happens in proportion, which means if the speed becomes half, the power doubles!

So now that we know how this works, can you figure out which gear in a car has maximum power? The first gear! But the speed is least. And in the top gear, The speed is highest but power is low. This is why you might notice that while going up on a slope, you need more power and the driver sometimes has to reduce the gear.

There are many different types of gears, like spur gear, bevel gears, helical gears, worm gears etc. In these models you will understand how a worm gear works with a spur gear.

Calculations:

This calculation is applicable for worm gears.

Output speed = Input Speed/Number of teeth (on spur gear)

Therefore in this gear (which has 15 teeth)

Output speed = Input speed/15

Considering that the motor is running at 150 Rotations per minute,

Output speed = $150/15 = 10$ Rotations per minute.



Now lets start building!

Step - 1

Nuts 4 pcs.

Bolts 6 mm 4 pcs.

ALB7 1 pc.

Bracket 1 pc.

A7 2 pcs.



Step - 2

Nuts 5 pcs.

Bolts 6 mm 5 pcs.

A3 1 pc.

ZZ3 2 pcs.

ALB7 1 pc.



Step - 3

Nuts 2 pcs.

Bolts 6 mm 2 pcs.

TW1 1 pc.

Rubber Bush 1 pc.

G1 1 pc.

R8 1 pc.

AB7 1 pc.

Ø0 mm Shaft 1 pc.



Step - 4

Nuts 4 pcs.

Bolts 6 mm 2 pcs.

Bolts 25 mm 2 pcs.

G2 1pc.

80 mm Shaft 1 pc.

Gear Box 1pc.



Step - 5

Wheel 4 pcs.

TW1 2 pcs.



Step - 1

-  Nuts | 4 pcs.
-  Bolts 6 mm | 4 pcs.
-  A7 | 2 pcs.
-  AB7 | 1 pc.
-  Bracket | 1 pc.



Step - 2



-  Nuts | 3 pcs.
-  Bolts 6 mm | 1 pc.
-  ALB7 | 2 pcs.
-  Bolts 12 mm | 2 pcs.
-  TW1 | 2 pcs.
-  ZZ3 | 2 pcs.

Step - 3

-  Nuts | 6 pcs.
-  Bolts 6 mm | 4 pcs.
-  Bolts 25 mm | 2 pcs.
-  A3 | 1 pc.
-  G1 | 1 pc.
-  TW1 | 1 pc.
-  80 mm Shaft | 1 pc.
-  Rubber Bush | 2 pcs.
-  G2 | 1 pc.
-  Gear Box | 1 pc.



Step - 4



TW1 2 pcs.



R8 1 pc.



80 mm Shaft 1 pc.



Step - 5



Wheel 4 pcs.



Step - 1

- Nuts 4 pcs.
- Boils 6 mm 4 pcs.
- AB7 1 pc.
- ALB7 2 pcs.
- Bracket 1 pc.



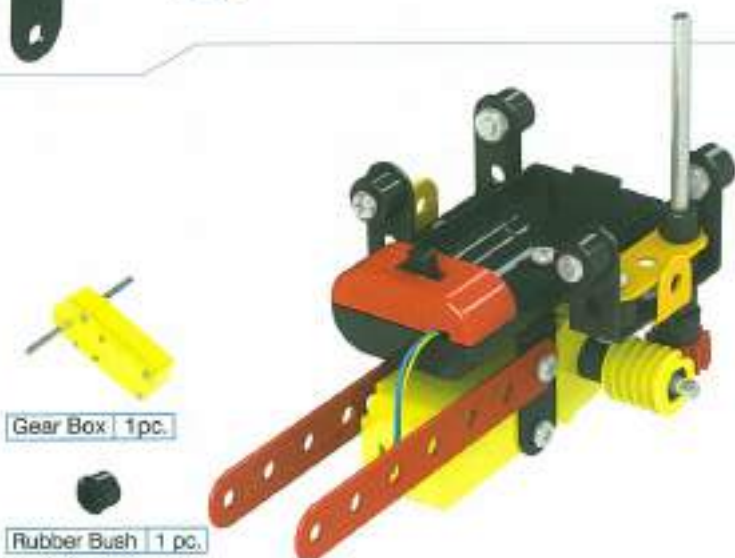
Step - 2



- Nuts 5 pcs.
- Boils 12 mm 5 pcs.
- Rubber Bush 2 pcs.
- 80 mm Shaft 1 pc.
- TW1 5 pcs.
- G1 1 pc.
- A3 1 pc.

Step - 3

- Nuts 3 pcs.
- Boils 6 mm 1 pc.
- Boils 25 mm 2 pcs.
- A7 2 pcs.
- G2 1 pc.
- Gear Box 1 pc.
- Rubber Bush 1 pc.



Step - 4

Nuts 2 pcs.

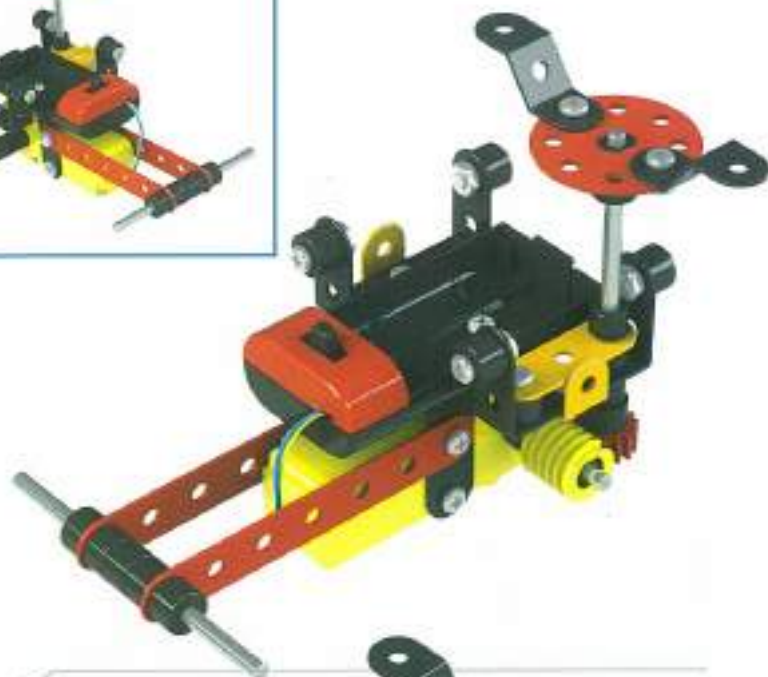
Bolts 6 mm 2 pcs.

TW1 8 pcs.

ZZ3 2 pcs.

R8 1 pc.

80 mm Shaft 1 pc.



Step - 5

Wheel 4 pcs.



Step - 1

Nuts 6 pcs.

Bolts 6 mm 6 pcs.

A7 2 pcs.

ALB7 2 pcs.

Bracket 1 pc.



Step - 2

Nuts 8 pcs.

Bolts 6 mm 5 pcs.

Bolts 12 mm 1 pc.

Bolts 25 mm 2 pcs.

A3 1 pc.

AB7 1 pc.

ZZ3 1 pc.

R8 1 pc.

Gear Box 1 pc.

Wheel 4 pcs.

80 mm Shaft 1 pc.





Robotix - I



Flexible Steel Pieces

Motor Powered

Age: 7+

108 pcs.

7 Models



Robotix - III



Age: 7+

215 pcs.

8 Models



Battle Station - 1



Battle Station - 2



Blix

POWER SCREW

New



GEAR BOX

New





Age 10+

1 Board

23 Components

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DESIGN YOUR CREATION AND BUY ONLY WHAT YOU NEED!

ENGINEERING SYSTEM FOR CREATIVE KIDS

That fresh smile and laughter, giggles and chattering of the little kids are one of the most refreshing happiness that touches the heart. Like the cool evening breeze on the rise that refreshes the soul of a worked up being. That is what Zephyr is all about and about quality, in the true sense of the word. Quality of play, quality of education and quality of product.

We bring you a whole range of play and educational toys of international standards that undergo through the strict quality control of the Zephyr family itself. Our kids have won quite a few awards and Meckara is our star set that has won "The Best Educational Toy" and "The Best Toy" award at the TATIMA. We do not do business, at Zephyr we befriend children. A smile on your child's face is our gain.



A3 1 pc.



A7 2 pcs.



AB7 1 pc.



ALB7 2 pcs.



ZZ3 2 pcs.



Bracket 1 pc.



Gear Box 1 pc.



Battery Box 1 pc.



G1 1 pc.



G2 1 pc.



Wheel 4 pcs.



R8 1 pc.



Rubber Bush 3 pcs.



TW1 13 pcs.



Nuts 20 pcs.



Bolts 8 mm 17 pcs.



Bolts 12 mm 6 pcs.



Bolts 25 mm 3 pcs.



Spanner 1 pc.



Screw Driver 1 pc.

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