



# Motorized MECHANIX

Engineering System For Creative Kids

8 MODELS

114 PIECES

AGE 7+



## *Do-it yourself manual*

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



## Dear Friends !

Zephyr brings yet  
another International  
class

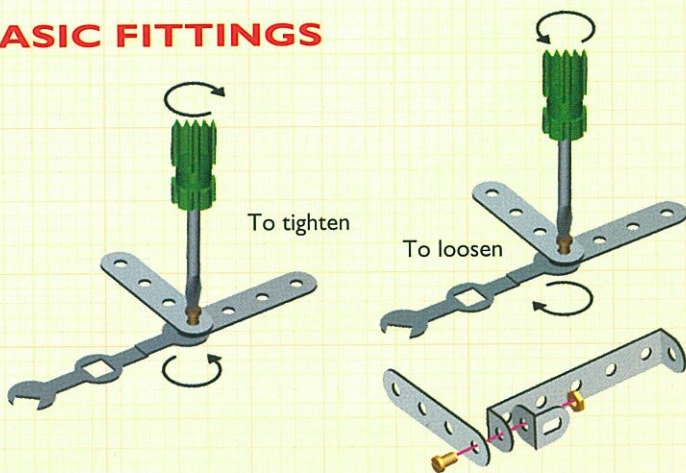
engineering set  
of Mechanix for you,  
to have fun & learn.

This set contains  
114 pieces, crafted  
from high quality  
Steel, which are  
powder coated,  
superior plastics  
&

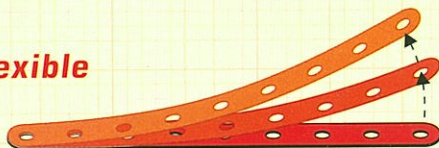
selected tools  
which will be  
friendly to your  
little hands so that  
you have fun  
while creating  
various models.  
You can use these  
parts over &  
over again  
to create at least  
8 models and  
may be many more  
as far as your  
imagination flies.

So come  
on get started!

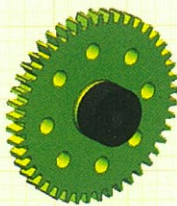
## BASIC FITTINGS



## Flexible







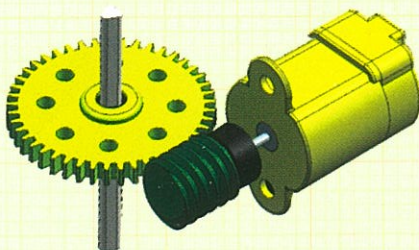
Spur gear  
G-3



Worm gear  
G-2

- 1 Gear are used to reduce speed and increase power.
- 2 Without gears the motor will not have enough power to move the car.

- 3 Gear Calculation  
1 Spur Gear (45 teeth).  
1 Worm Gear



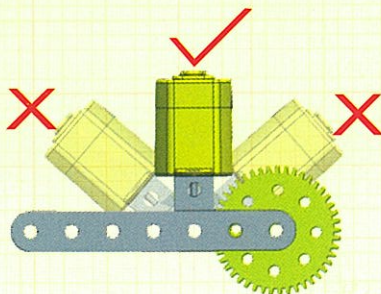
Consider motor is running at 10,000 rpm (rotations per minute)

Input speed = 10,000 rpm

Output speed =  $\frac{10,000}{45} = 222.22 \text{ rpm}$

## Having Problems

- 1 Motor not working.
  - a Place new batteries
- 2 Motor is working but gears are not working and wheels are not turning:
  - a Make sure the wheels are not attached too tightly on the metal pieces. Give a little extra space between wheel and metal pieces.
  - b Make sure the axis of worm gear is perpendicular to spur gear.



- c Roll the free wheel with your hand and check if its moving freely. If not, loosen the bushes attached on the wheel shaft.



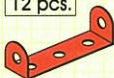
## Step 1



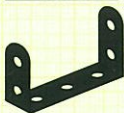
Nuts  
12 pcs.



Bolts-1  
12 pcs.



AB-5 | 3 pcs.



ALB-7 | 1 pc.



A-5 | 2 pcs.



A-7 | 2 pcs.



SS-9 | 1 pc.



A-11 | 2 pcs.



( Hints: Attach ALB-7 perpendicular to A7 )

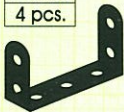
## Step 2



Nuts  
4 pcs.



Bolts-1  
4 pcs.



ALB-7 | 1 pc.



SS-9 | 1 pc.





## Step 3



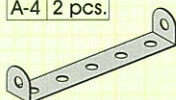
R-8 1 pc.



Wheels 1 pc.



A-4 2 pcs.



AB-7 1 pc.



Rubberband 1 pc.



Shaft (70mm) 1 pc.



Shaft (80mm) 1 pc.



Nuts  
4 pcs.



Bolts-1  
4 pcs.

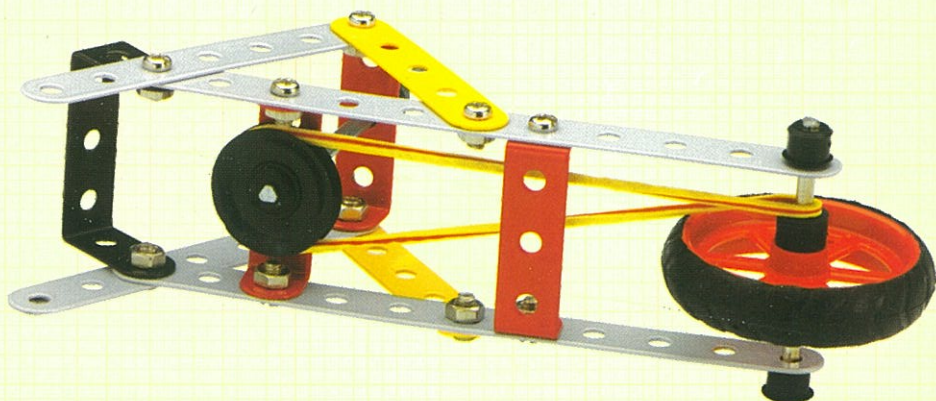


Bush  
2 pcs.



PY-2  
1 pcs.

### How to fix Rubber Band



( Hint: Make sure rubber band is placed in shaft before wheel )



## Step 4 Back side view to show gear fitting



Worm gear  
G-2 1pc.



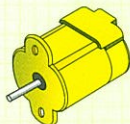
Shaft (80mm) 1 pc.



Battery Box 1 pc.



Wheels 2 pcs.



Motor 1 pc.



G-3 1 pc.



Bolts - 2  
1 pc.

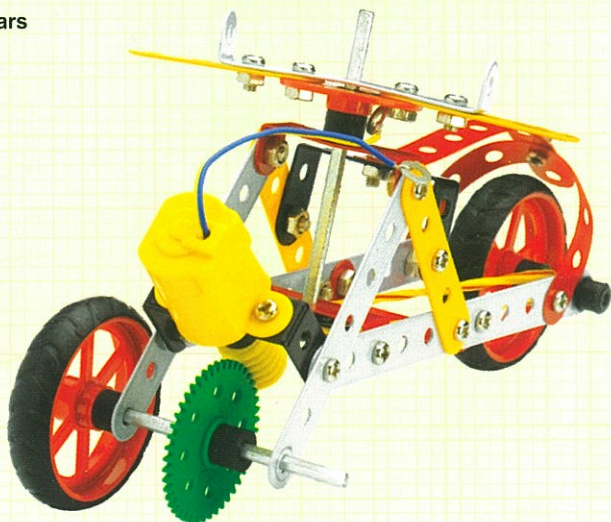


Bolts-1  
2 pcs.

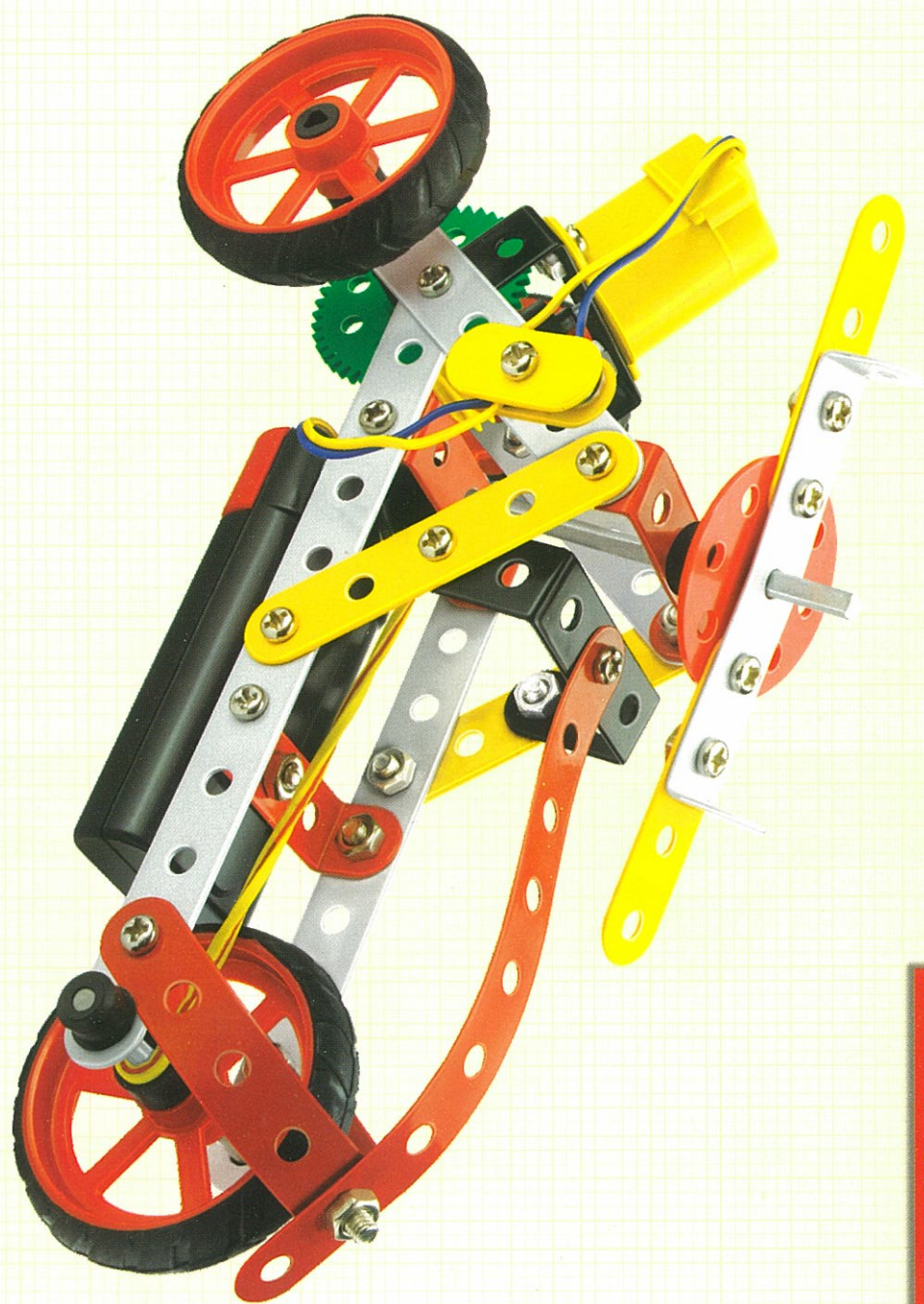


Nuts  
3 pcs.

### How to attach gears







MECHANIX



## Step 1



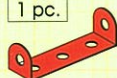
Nuts  
11 pcs.



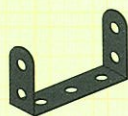
Bolts-1  
11 pcs.



AB-3  
1 pc.



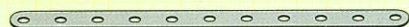
AB-5 3 pcs.



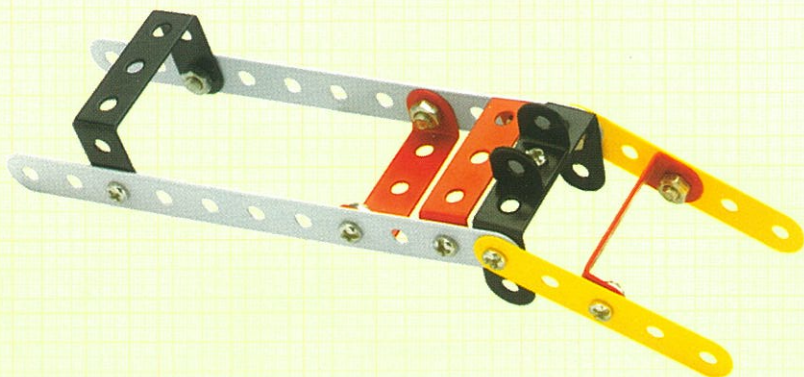
ALB-7 2 pcs.



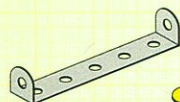
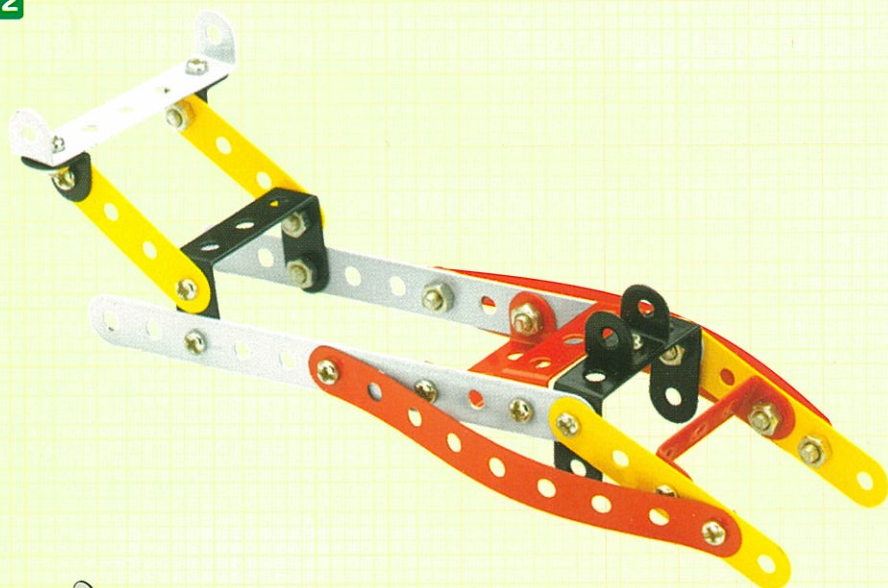
A-5 2 pcs.



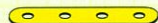
A-11 2 pcs.



## Step 2



AB-7 1 pc.



A-4 2 pcs.



SS-9 2 pcs.



AB-2  
2 pcs.



Bolts-1  
10 pcs.

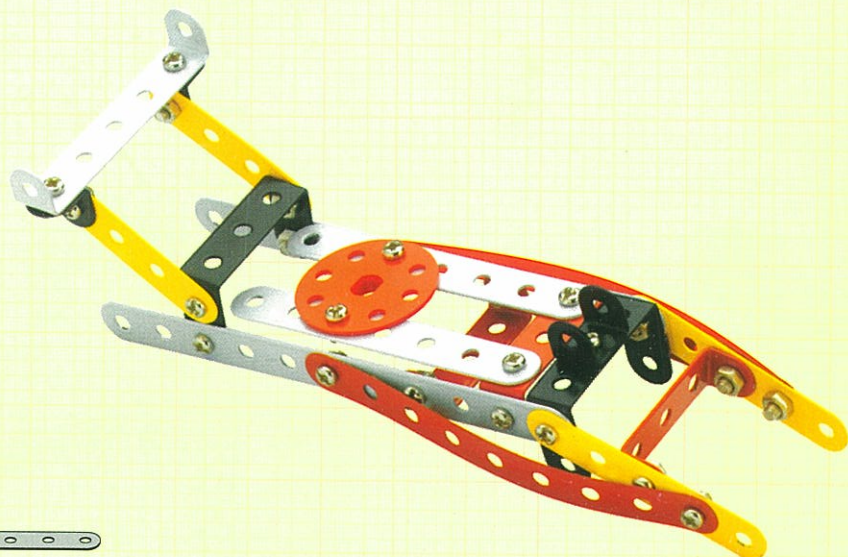


Nuts  
10 pcs.



# Step 3

# MECHANIX



Nuts  
4 pcs.



Bolts-1  
4 pcs.



R-8 1 pc.



A-7 2 pcs.

# Step 4



Bush  
4 pcs.



Worm gear  
G-2 1 pc.



Shaft (70mm) 1 pc.



Shaft (80mm) 2 pcs.



Battery Box 1 pc.



Motor 1 pc.



Wheels 3 pcs.



G-3 1 pc.



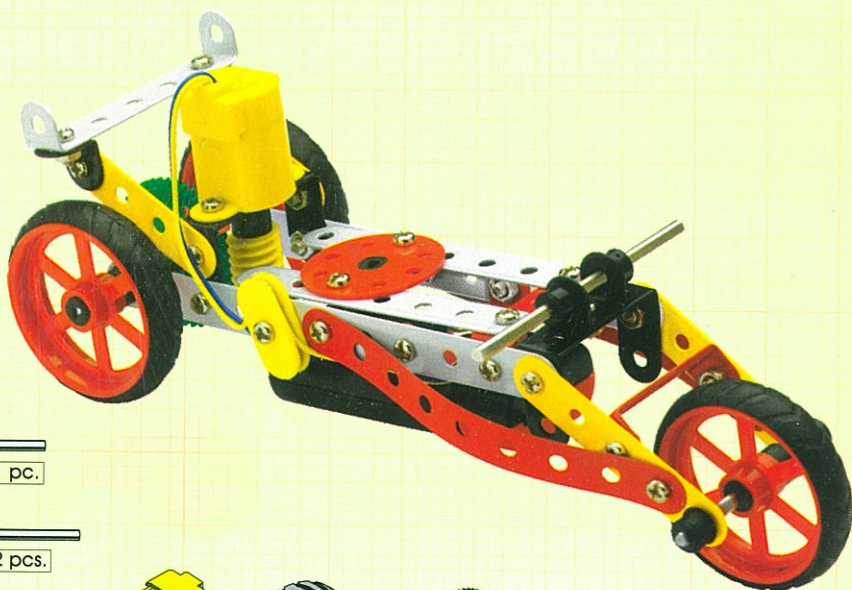
Bolts - 2  
1 pc.



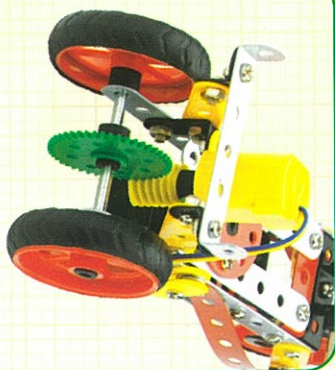
Bolts-1  
3 pcs.



Nuts  
4 pcs.







Back side view



# Step 1

# MECHANIX



Nuts  
8 pcs.



Bolts-1  
8 pcs.



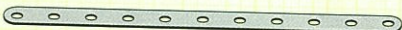
AB-5 | 2 pcs.



A-5 | 2 pcs.



A-7 | 2 pcs.



A-11 | 2 pcs.

# Step 2



G-3 | 1 pc.



Wheels | 2 pcs.



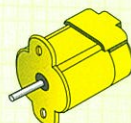
Worm gear  
G-2 | 1 pc.



Bolts-1  
4 pcs.



Nuts  
4 pcs.



Motor | 1 pc.



ALB-7 | 1 pc.



Shaft (80mm) | 1 pc.

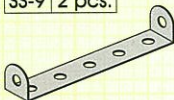




### Step 3



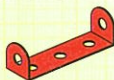
SS-9 | 2 pcs.



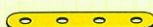
AB-7 | 1 pc.



ALB-7 | 1 pc.



AB-5 | 1 pc.



A-4 | 2 pcs.



Wheels | 1 pc.



Rubberband | 1 pc.



Nuts  
8 pcs.



Bolts-1  
8 pcs.



Bush  
3 pcs.



PY-2  
1 pc.

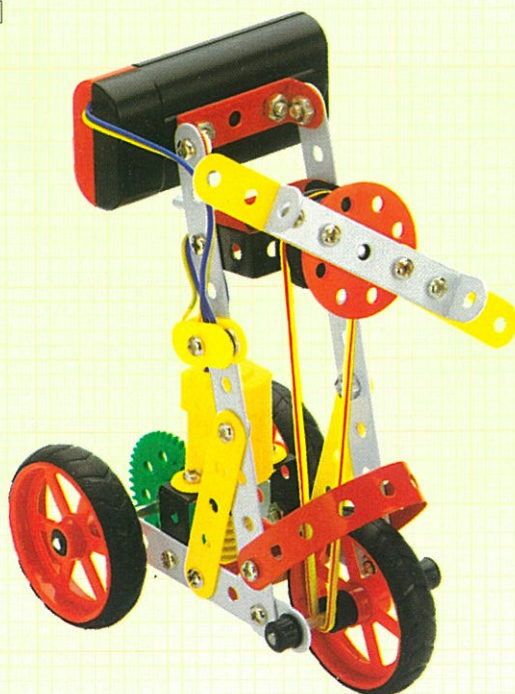


R-8 | 1 pc.

Shaft (70mm) | 1 pc.

Shaft (80mm) | 1 pc.

### Step 4



Nuts  
3 pcs.



Bolts-1  
2 pcs.

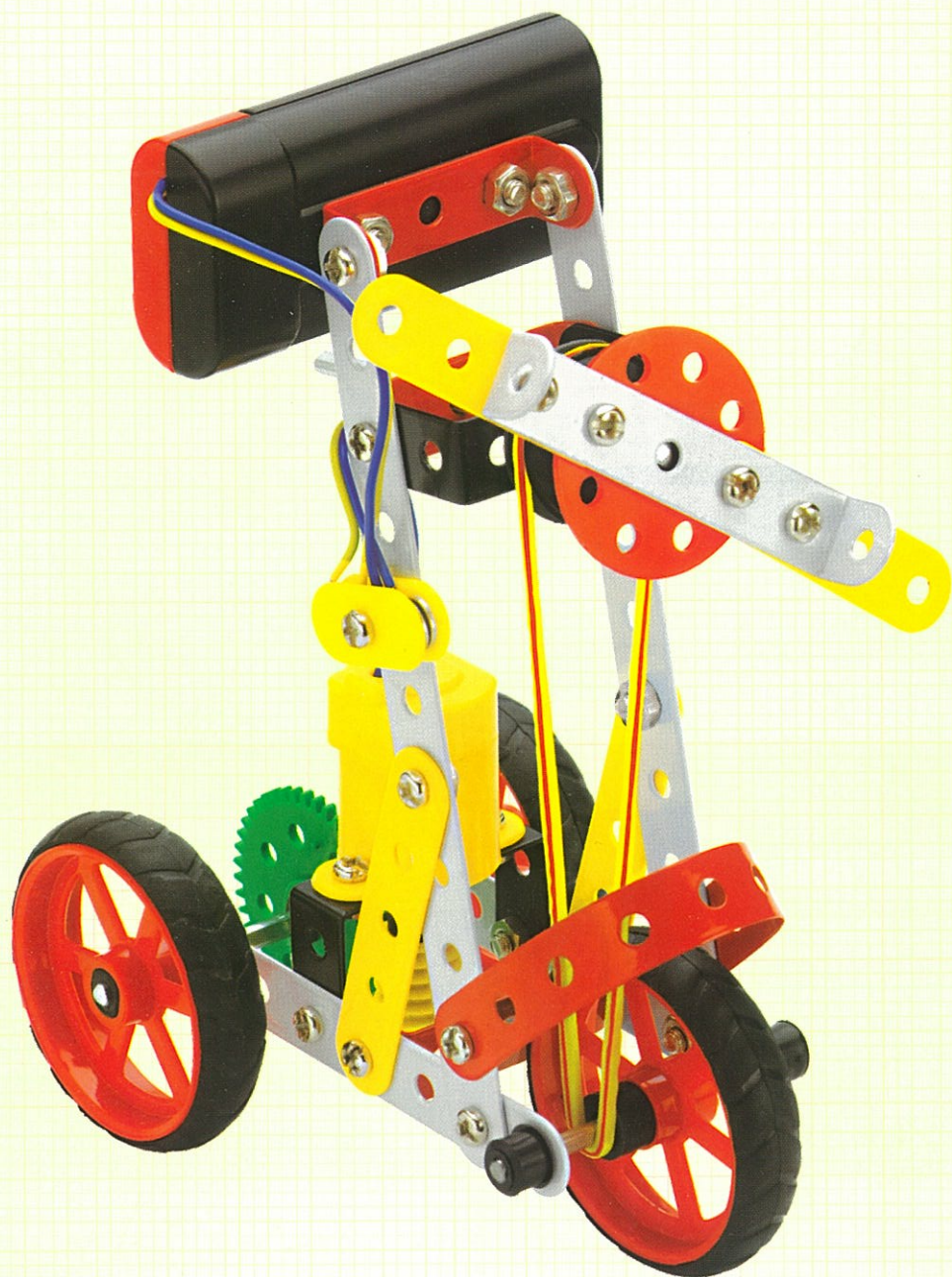


Bolts - 2  
1 pc.



Battery Box | 1 pc.







## Step 1



Nuts  
12 pcs.



Bolts-1  
12 pcs.



AB-5 | 2 pcs.



A-5 | 2 pcs.



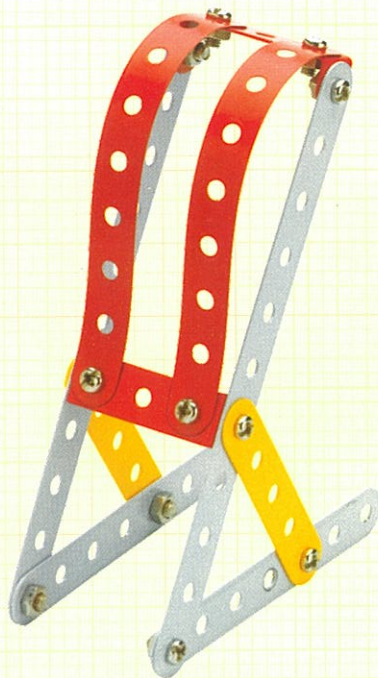
A-7 | 2 pcs.



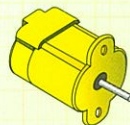
SS-9 | 2 pcs.



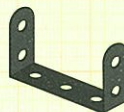
A-11 | 2 pcs.



## Step 2



Motor | 1 pc.



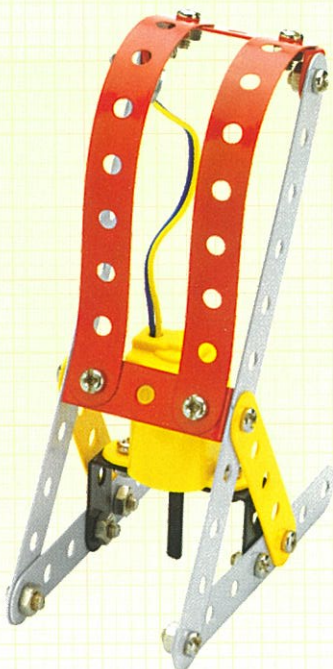
ALB-7 | 2 pcs.



Nuts  
4 pcs.



Bolts-1  
4 pcs.



( Hint: First fix motor to ALB-7.  
Then fix ALB-7 to model )



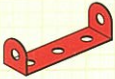




## Step 3



A-4 | 2 pcs.



AB-5 | 1 pc.



R-8 | 1 pc.

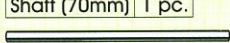


Wheels | 1 pc.



Rubberband | 1 pc.

Shaft (70mm) | 1 pc.



Shaft (80mm) | 1 pc.



PY-2  
1 pc.



Bush  
4 pcs.



Nuts  
2 pcs.



Bolts-1  
2 pcs.

( Hint: Use 2 bush to tighten AB5 on shaft)

( Note: This is back facing view of model for a better understanding.)

## Step 4



Nuts  
1 pc.



Battery Box | 1 pc.



Bolts - 2  
1 pc.



Wheels | 2 pcs.



Worm gear  
G-2 | 1 pc.



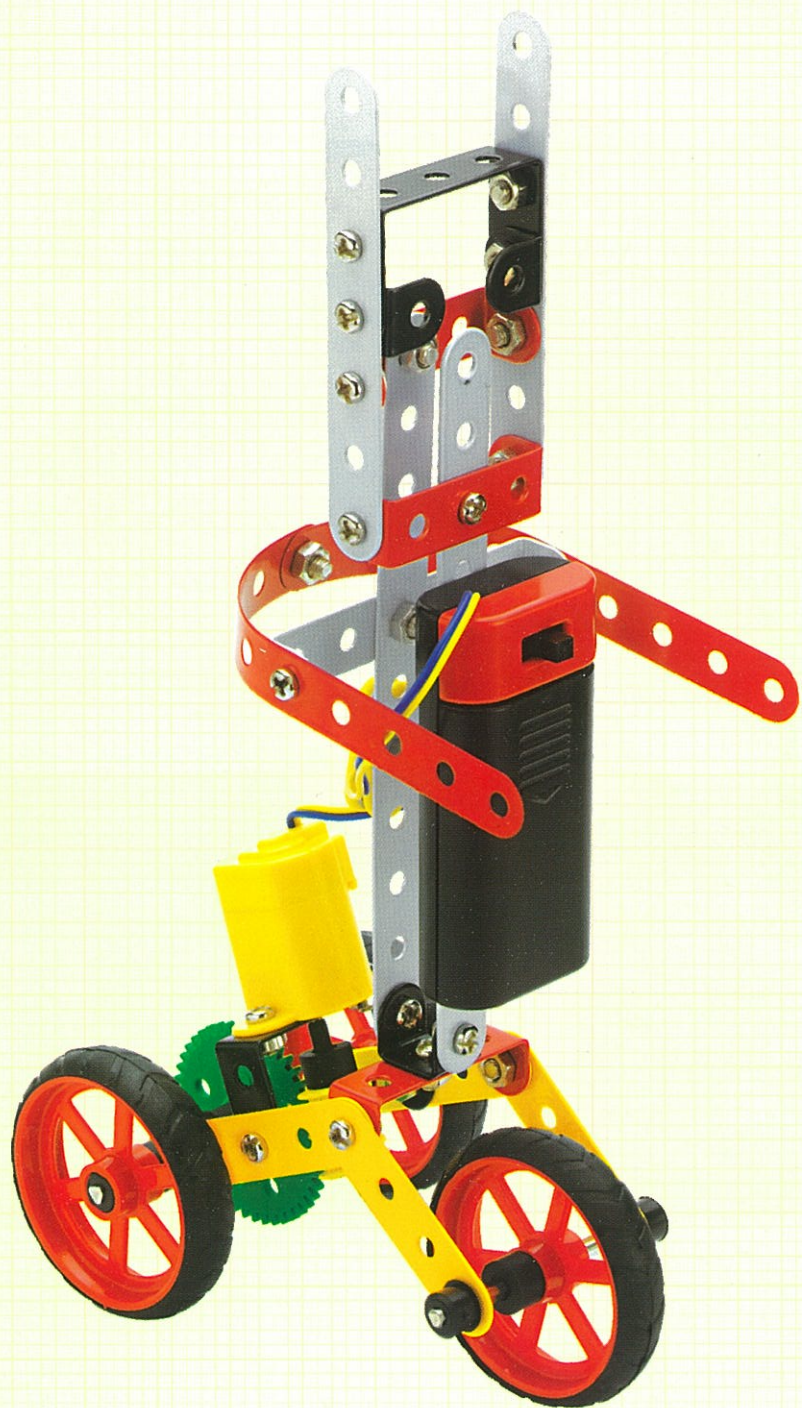
G-3 | 1 pc.



Shaft (80mm) | 1 pc.

( Hint: Remove the 2 nuts and bolts and refit it with battery box. )



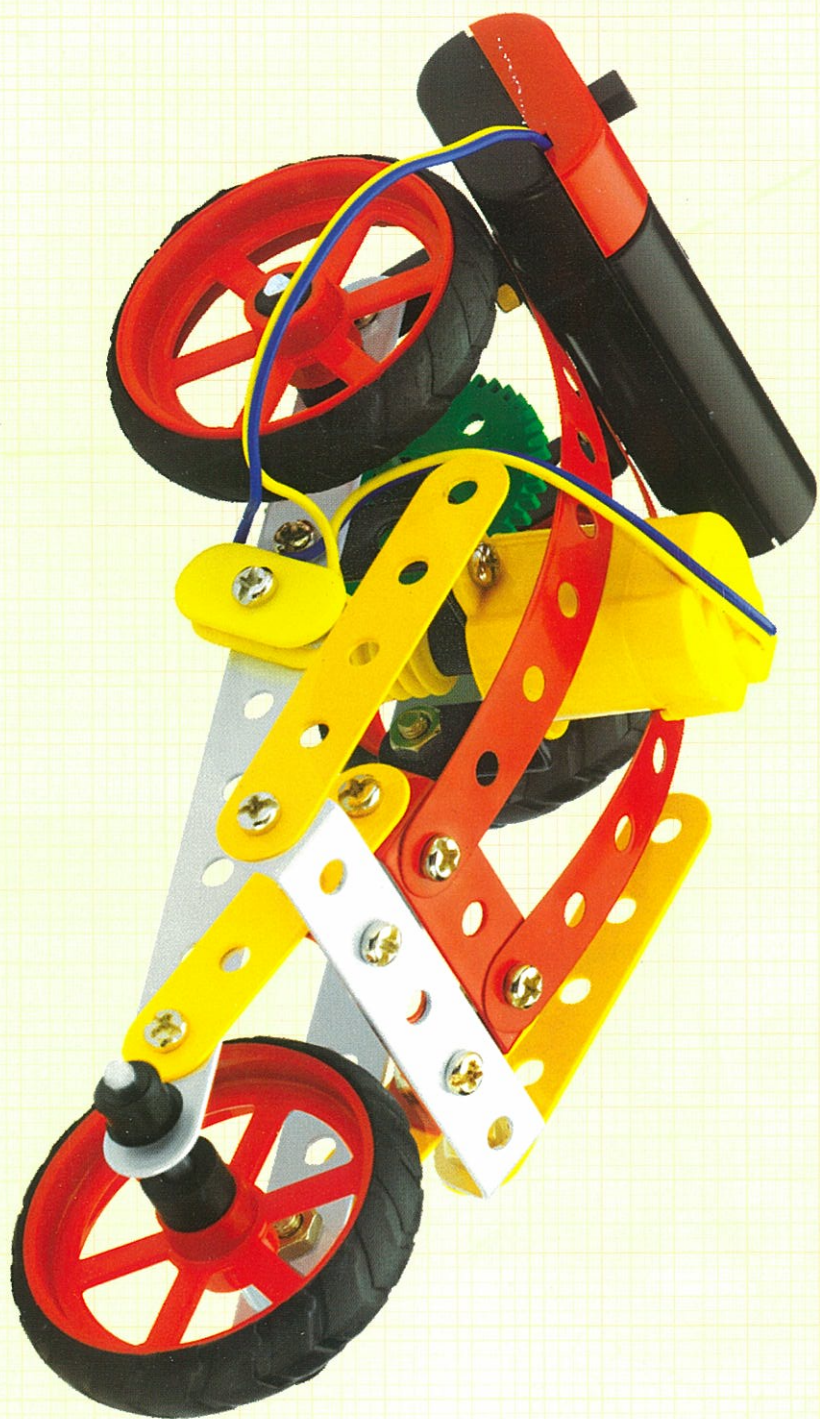






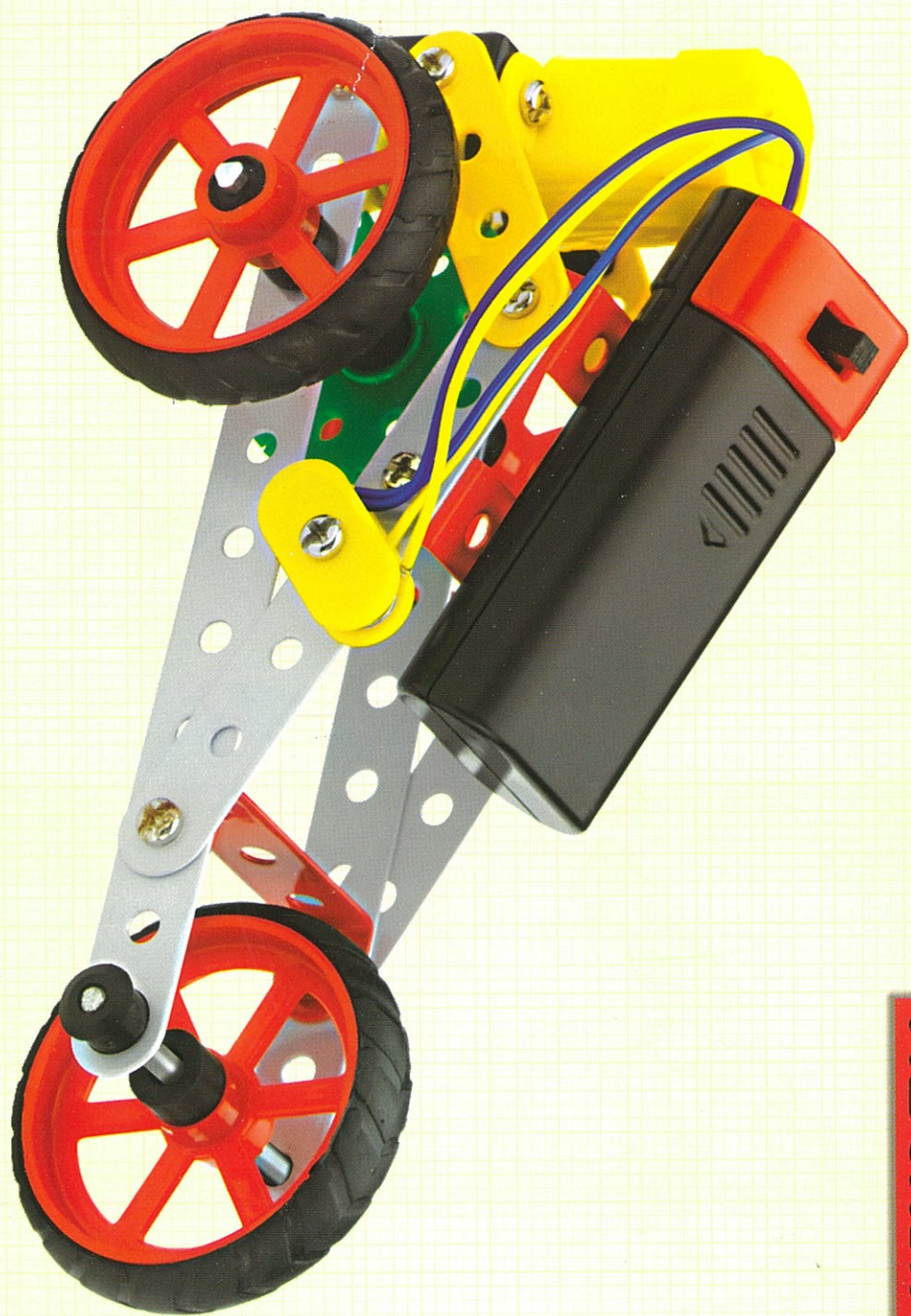
MECHANOX





MECHANIX





MECHANIIX



# PLASTIC MECHANIX



AGE  
3+

## MECHANIX - Cars I

### Contents:

- 57 Pcs.
- No.of Models: 4



## MECHANIX - Planes I

### Contents:

- 57 Pcs.
- No.of Models: 4



## MECHANIX - Cars 2

### Contents:

- 81 pcs.
- No.of Models: 7



## MECHANIX Planes 2

### Contents:

- 81 pcs.
- No.of Models: 7



## MECHANIX - Cars 3

### Contents:

- 175 pcs.
- No.of Models: 15



## MECHANIX - Planes 3

### Contents:

- 180 pcs.
- No.of Models: 15



## MECHANIX - MobiTech

### Contents:

- 110 pcs.
- No.of Models: 14



# METAL MECHANIX



## MECHANIX - NX0

### Contents:

- 108 pcs.
- No. of Models: 7



## MECHANIX - 0

### Contents:

- 98 pcs.
- No. of Models: 5



## MECHANIX - 4

### Contents:

- 263 pcs.
- No. of Models: 20



## MECHANIX - 5

### Contents:

- 301 pcs.
- No. of Models: 25



## MECHANIX Racing Cars

### Contents:

- 155 pcs.
- No. of Models: 15



## MECHANIX Monster Buggies

### Contents:

- 98 pcs.
- No. of Models: 5



POCKET  
SERIES

## MECHANIX - Bikes

### Contents:

- 68 pcs.
- No. of Models: 3



POCKET  
SERIES

## MECHANIX - Cars

### Contents:

- 65 pcs.
- No. of Models: 3





### MECHANIX - 1

#### Contents:

- 128 pcs.
- No. of Models: 10



### MECHANIX - 2

#### Contents:

- 170 pcs.
- No. of Models: 15



### MECHANIX Motor Bikes 1

#### Contents:

- 152 pcs.
- No. of Models: 15



### MECHANIX Eiffel Tower

#### Contents:

- 2125 pcs.
- Packed in an attractive wooden box



### MECHANIX Battle Station

#### Contents:

- 95 pcs.
- No. of Models: 9



### MECHANIX Robotix

#### Contents:

- 296 pcs.
- No. of Models: 5



### MECHANIX Helicopters

#### Contents:

- 68 pcs.
- No. of Models: 3

POCKET  
SERIES



### MECHANIX Planes

#### Contents:

- 82 pcs.
- No. of Models: 3

POCKET  
SERIES



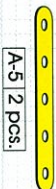
That fresh smile and laughter, giggles and chattering of the little kids are one of the most refreshing happiness that touches the heart. Like the cool evening breeze on the rise that refreshes the soul of a worked up being. That is what Zephyr is all about and about quality, in the true sense of the 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 kits have won quite a few awards and Mechanix is our star set that has won "The Best Educational Toy" and "The Best Toy" award at the IATIMA. We do not do business, at Zephyr's we befriend children. A smile on your child's face is our gain.

## Engineering System For Creative Kids



A-4 | 2 pcs.



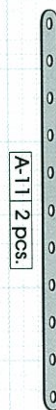
A-5 | 2 pcs.



A-7 | 2 pcs.



SS-9 | 2 pcs.



A-11 | 2 pcs.



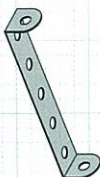
AB-2 | 2 pcs.



AB-3 | 1 pc.



AB-5 | 3 pcs.



AB-7 | 1 pc.



ALB-7 | 2 pcs.



R-8 | 1 pc.



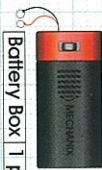
Motor | 1 pc.



Rim | 3 pcs.



Tyre | 3 pcs.



Battery Box | 1 pc.



G-3 | 1 pc.



PV-2 | 1 pc.



Worm gear  
G-2 | 1 pc.



Bush | 4 pcs.



Nuts | 35 pcs.



Bolts-1 | 35 pcs.



Bolts - 2 | 2 pcs.



Shaft (70mm) | 1 pc.



Shaft (80mm) | 2 pcs.



Rubberband | 1 pc.



Spanner | 1 pc.



Screw Driver | 1 pc.

### ZEPHYR TOYMAKERS PVT. LTD.

A-421, T.I.C. Indl. Area, MIDC, Mahape, Navi Mumbai, - 400710, (India)

Tel: +91 22 27780605 | 27782484 | Fax: +91 22 27782485

www.zephyrtoys.com, feedback@ztpl.in

August 2018

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