

# Hello Toby

Engine aircraft

Discover the Joy of a

Electric Friend



**NOT**  
included



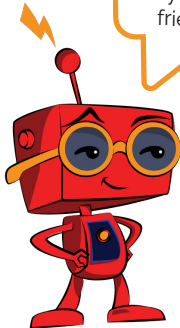
Level



# Toby

the single engine aircraft

*Hi there!  
I'm Sparkz  
Let me introduce  
you to my  
friend Toby!*



*Hey there, little buddy!*

I'm Toby, the single engine aircraft,.  
I'm a single engine aircraft and  
I'm here to tell you about me, so get ready for some fun!



*Hi there, my friend! I'm Toby, the Small Single-Engine Aircraft. I'm here to take you on a fantastic adventure through the skies!*

*Imagine soaring high above the clouds, feeling the wind in your hair, and seeing the world from a whole new perspective.*

*I have wings that help me glide through the air, just like a bird. And with my propeller spinning, I can fly faster and explore new places.*

*So, my little adventurer, buckle up and get ready for an amazing flight with Toby, the Small Single-Engine Aircraft.*

*We'll explore the skies together and make memories that will last a lifetime. Let's fly high and have a wonderful time!*

# Let's see what we need and how to prepare:



## How to get prepare:

- Before you start, you need to find a safe and clean place to work.
- If you have any questions or need help, you can ask your parents, a grownup or teacher and they will assist you.

## Some things to keep in mind:

- *Be careful:* When you open the package with the parts, be careful not to drop or lose any small parts. They are very important for your model. If you lose a piece, your model might not work!
- *Read and follow:* If you want to make your model easily, you need to read the instructions well and follow the steps.

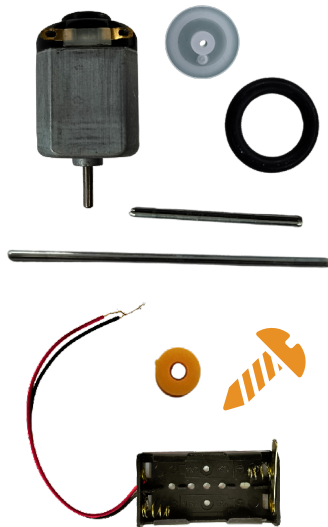


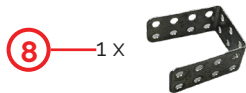
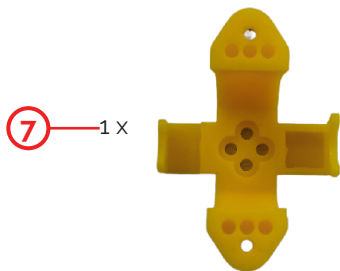
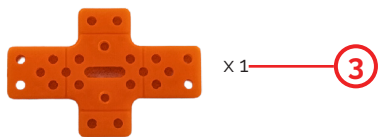
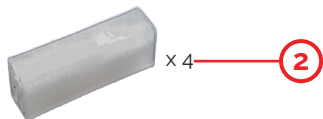
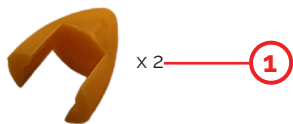


Remember to get 2 x AA batteries for Toby!

## What is in the BOX

- 4 pulleys
- 1 battery box
- 3 metal brackets
- 1 motor
- 3 bushings
- 2 shafts
- 4 spacers
- 2 propeller
- 18x 6mm screws
- 4 o-rings
- 1x plastic motor clamp
- 2x 1590 plates
- 1x cross mounts
- 1x plastic shaft

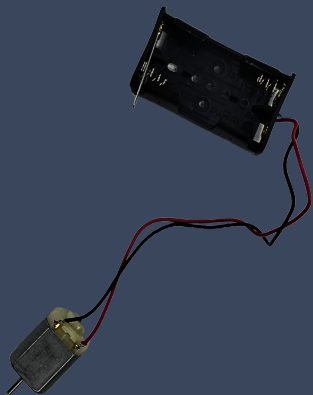




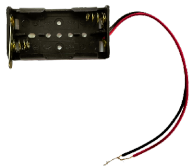
## Step 1



There are two propellers that will each blow the wind in the opposite direction. If your motor blows the wind forward you can simply replace the propeller with the other one.



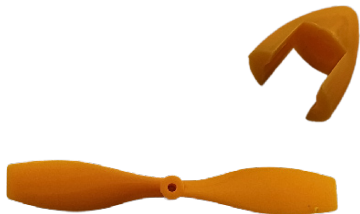
## Step 2



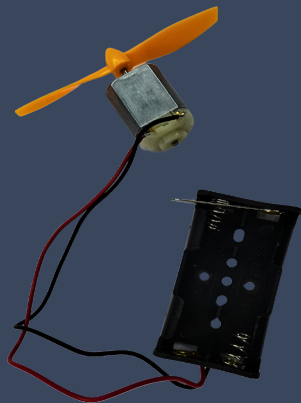
Connect the battery holder to the poles on the motor (the polarity does not matter).



### Step 3

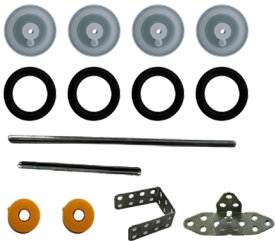


Push one of the propellers over the shaft of the motor. Put the small cap over the center of the propeller.





## Step 4

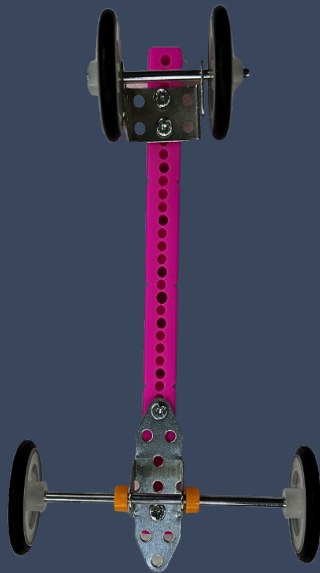


Put the short shaft through one of the bottom holes of the u-shaped metal bracket. Push two pulleys over the shaft and put two o-rings over the pulleys. Use the longer metal bracket and put the longer shaft through the bottom holes. Position the bracket to be in the middle of the shaft and push two orange bushings over the shaft to keep it in place. Push the other two pulleys over the shaft and put the other two o-rings over the pulleys.

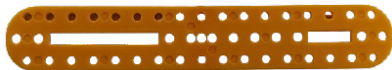
## Step 5



Use the 6mm screws to fasten the brackets with the wheels on them onto the plastic shaft.



## Step 6



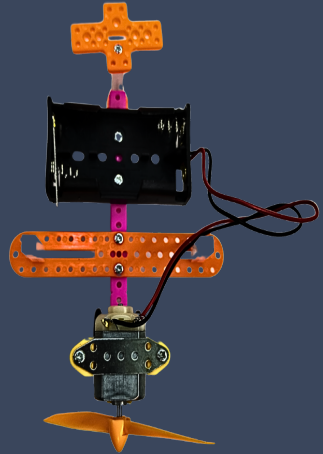
Use the 6mm screws to fasten the spacers onto the 1590 plate and the cross mount as shown in the picture.

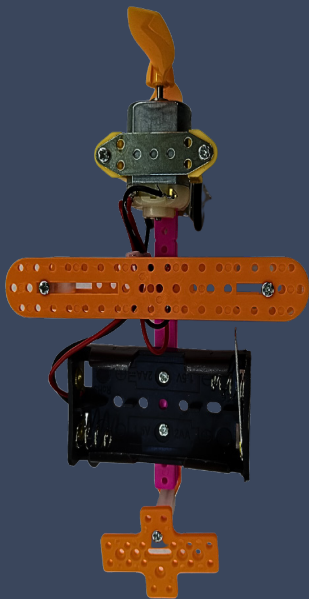


## Step 7



Fasten the plastic motor bracket on the end of the plastic shaft above the u-shaped bracket with the 6mm screws. Fasten the plastic 1590 plate onto the plastic shaft so that the plastic shaft is in the center of the plate and there are two holes open between the motor bracket and the plate. Screw the spacer with the cross bracket onto the back of the metal bracket with the long shaft as shown in the picture. Insert the motor into the motor bracket and fasten the metal plate on top of the motor bracket. Place the battery holder on the back of the plastic shaft and fasten it with the screws.





## Step 8

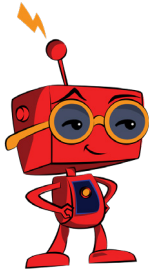
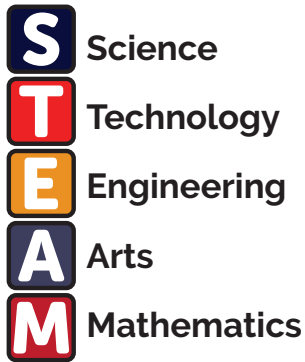


Put the 1590 plate on the spacer standing upwards from the other 1590 plate and fasten it with screws. Use the cable tie to neatly bind the wires together.

## Step 9

Now insert batteries into the battery holder and close the switch. If your plane is reversing take the propeller off the motor and put the other propeller on. The plane should now move forward.





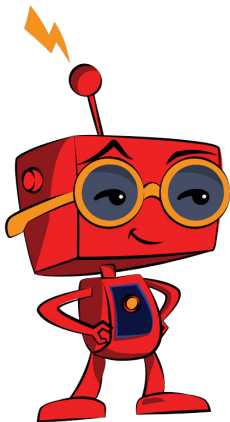
**STEAM** kits - help kids learn many skills they'll need in a fun and practical way.

## Here's how they help:

1. *Hands-On Learning:*  
Kids do experiments and projects, making learning fun.
2. *Problem-solving:*  
They learn to solve problems by thinking and trying things out.
3. *Creative Thinking:*  
Arts and design are part of **STEAM**, so kids get to be creative.
4. *Confidence:*  
Completing projects makes kids feel like they accomplished something
5. *Preparation:*  
**STEAM** skills are important for the future, so kids are ready for jobs.



# Collect them all

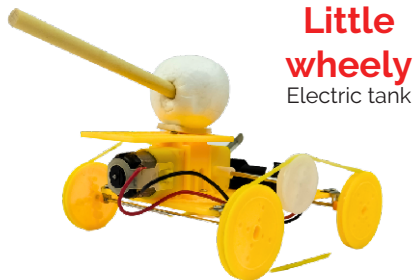


*With a bit of  
imagination you  
can create your  
own unique friends.  
Please share your  
creations with our  
community*

Please ask your mom / dad / teacher or a grown up to help you to upload your creations to our community page on the website. We would love to see your creations and also share and inspire the little creator in you.

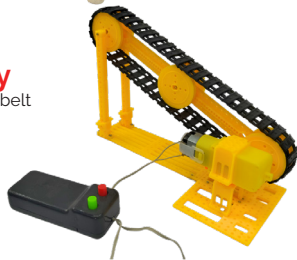


**Doodley**  
Doodle robot



**Little wheely**  
Electric tank

**Cody**  
Conveyor belt



**Animal kingdom**  
Ferris wheel