



Turnigy 9X Mode 1 to Mode 2 conversion

This guide will show how to change the sticks on a Turnigy 9X from Mode 1 to Mode 2.

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INTRODUCTION

The Turnigy 9X is an inexpensive and highly hackable transmitter for remote controlled aircraft. This guide will show how to change a Turnigy 9X from Mode 1 (with the throttle on the right and elevator on the left) to Mode 2 (with the throttle on the left and the elevator on the right).

Thanks to Miro at iFixit for photographing this guide while I performed the work at Maker Faire 2011!

TOOLS:

- [Flathead Screwdriver](#) (1)
To push a retaining pin into place
 - [Large Needle Nose Pliers](#) (1)
 - [Paper Clip](#) (1)
To push out a retaining pin
 - [Phillips #0 Screwdriver](#) (1)
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Step 1 — Turnigy 9X Mode 1 to Mode 2 conversion



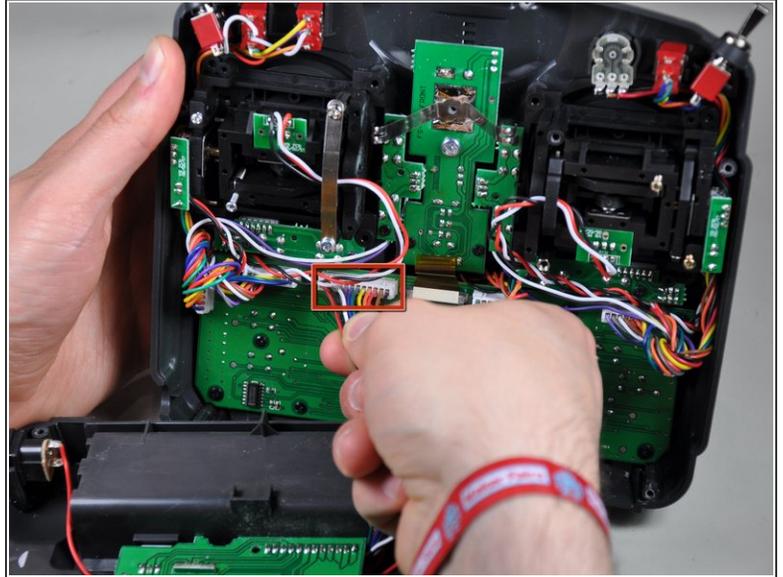
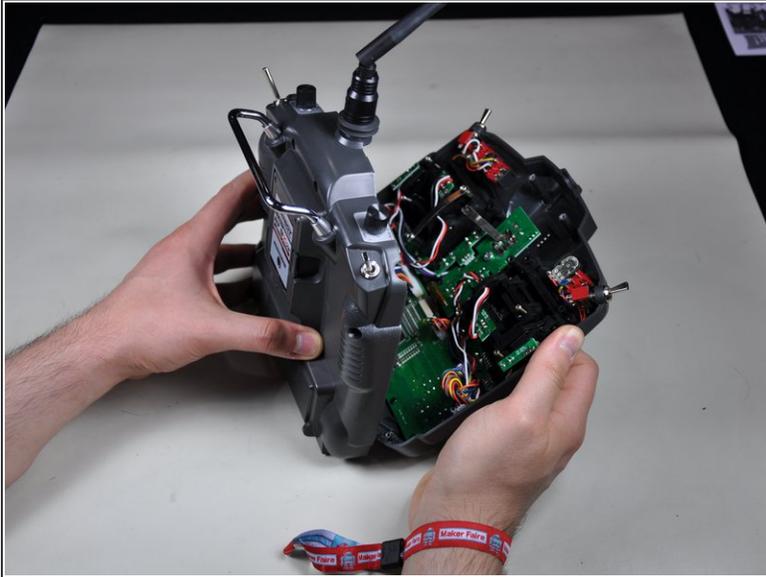
- The Turnigy 9X, set up for Mode 1. Notice the left stick is centered in both axes, while the right stick is only centered horizontally.
- ⓘ In this guide "right stick" and "left stick" refer to the positions of the sticks when viewed from the front of the case.

Step 2



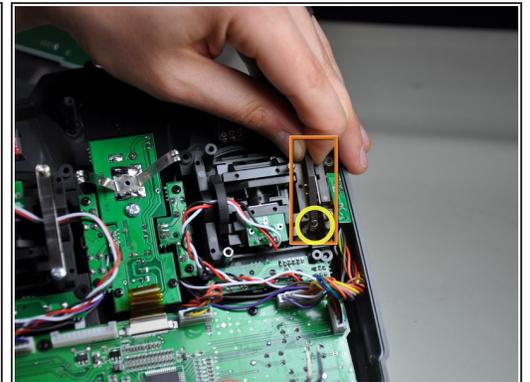
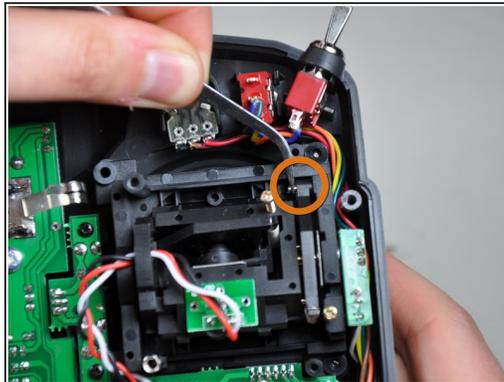
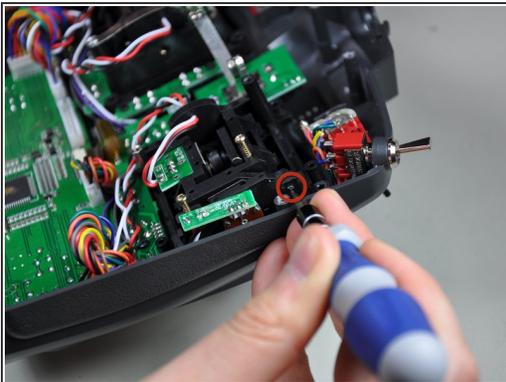
- Remove the six screws around the back of the case.

Step 3



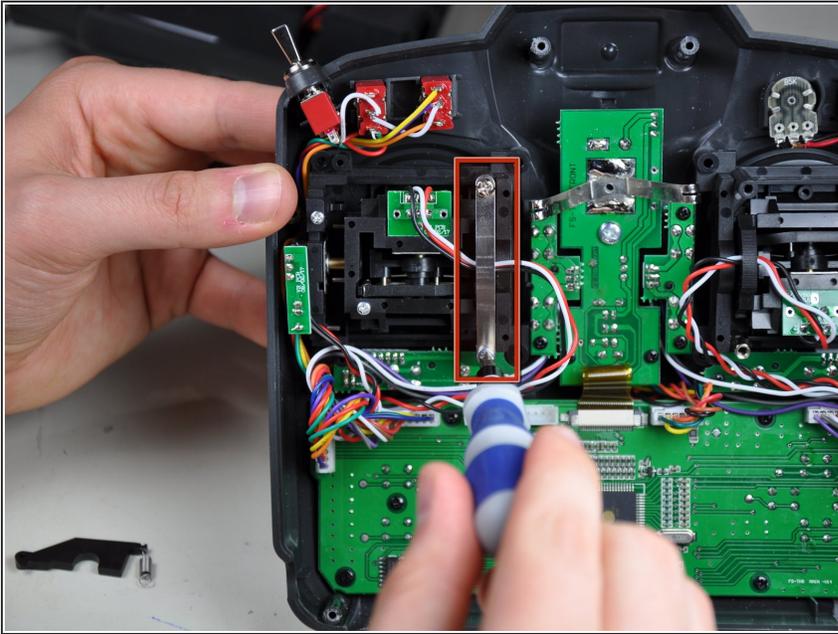
- Separate the front and back halves of the case.
- Disconnect the cable linking the rear half to the front half.

Step 4



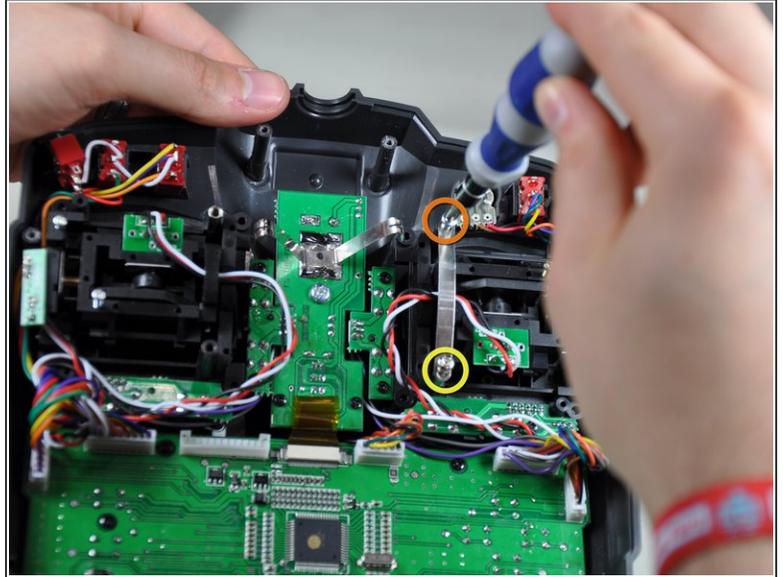
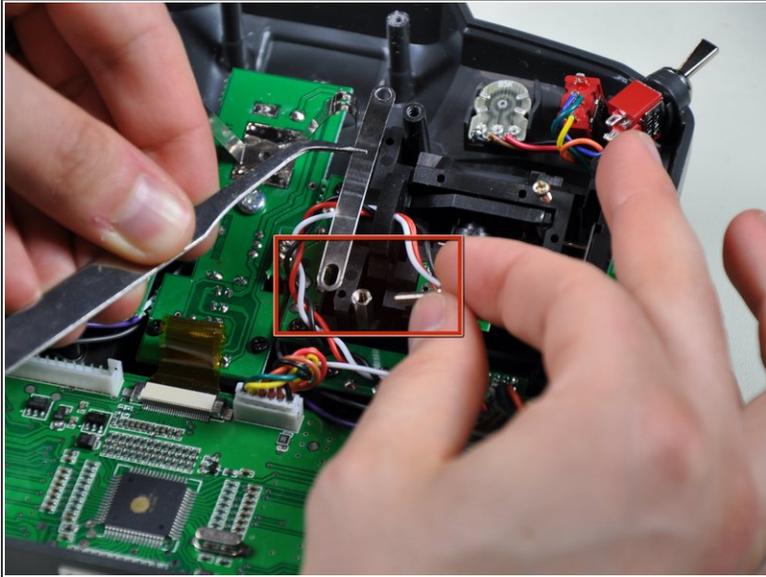
- Remove the spring arm and spring for the left stick.
- Push out the retaining pin.
- Remove the retaining pin and spring arm.
- Remove the spring.

Step 5



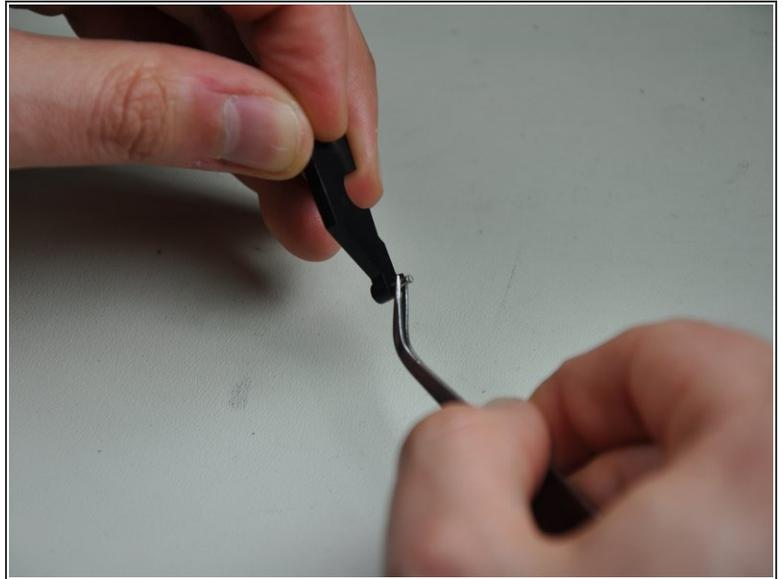
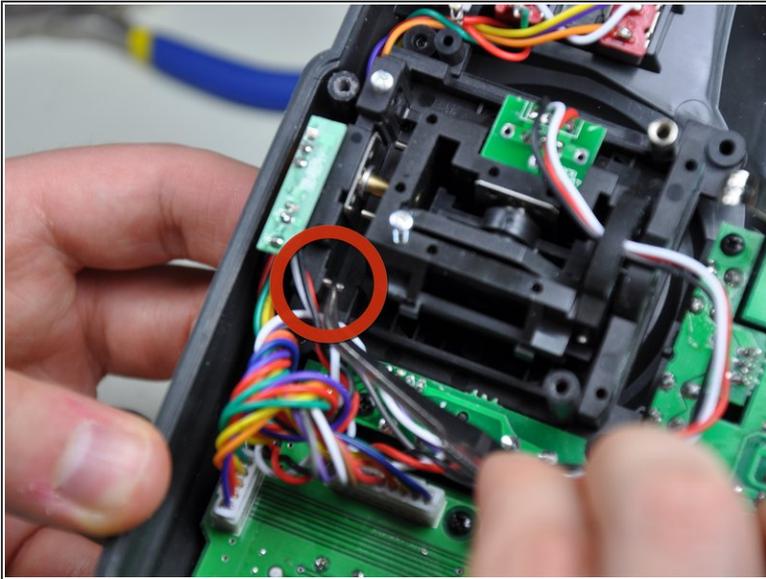
- Remove the tensioner from the right stick.

Step 6



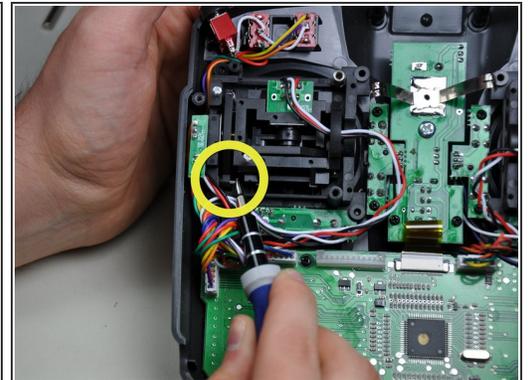
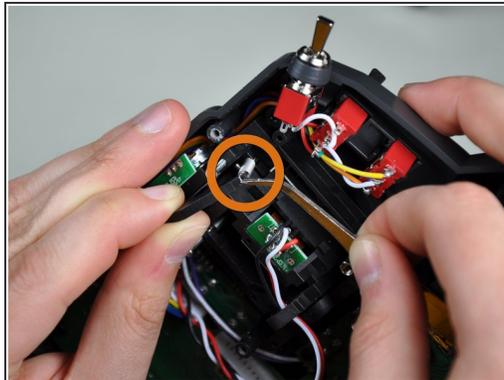
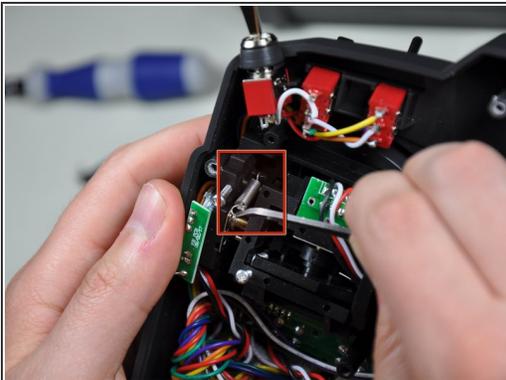
- Attach the tensioner to the left stick.
- Make sure you have the larger slot and machine screw on the metal post.
- Fully tighten down the screw in the plastic post.
- Use the screw in the metal post to adjust the tension on the left stick.

Step 7



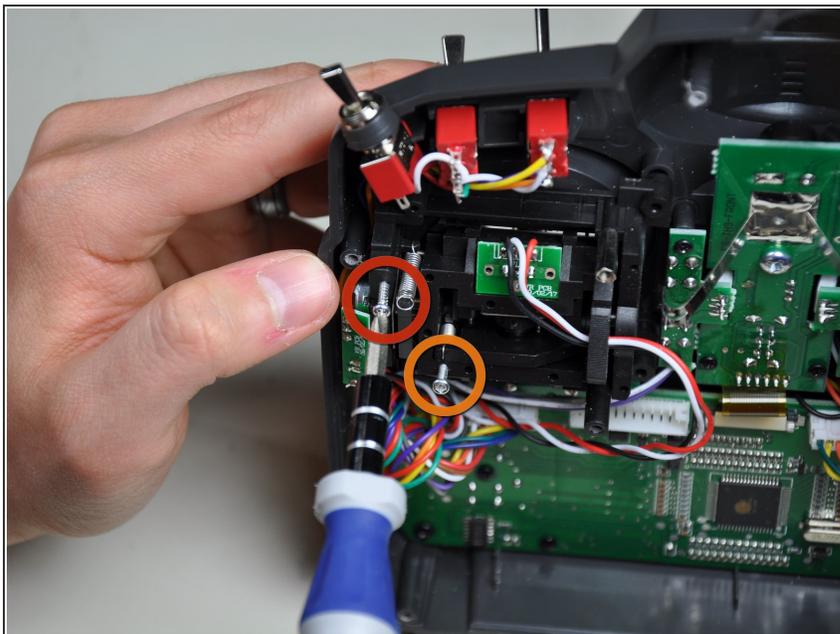
- Remove the retaining pin from the right stick.
- Drop the retaining pin into the spring arm. It is a loose fit, so it will freely drop straight through if the arm isn't held level.

Step 8



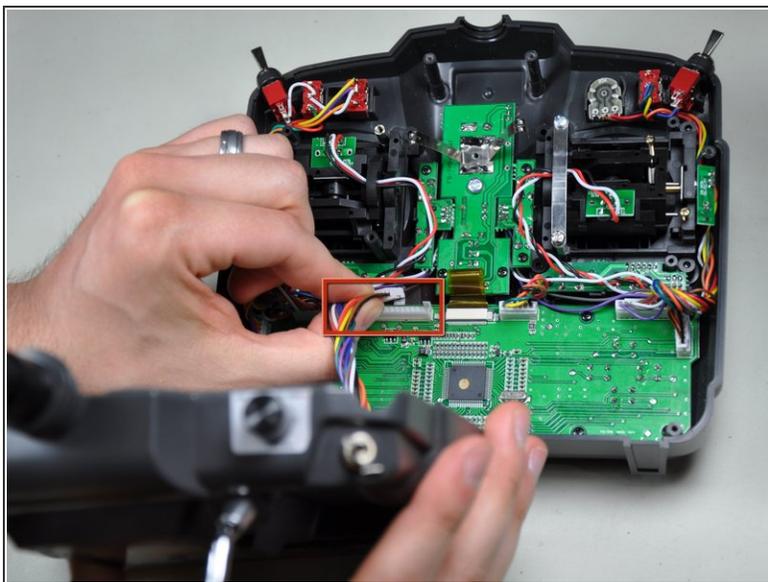
- Attach the spring to the plastic hook on the right stick.
- Hook the spring over the end of the spring arm.
- Line the spring arm up with the hole in the right stick casing and push the pin into place so it is flush with the side of the spring arm.

Step 9



- You can now adjust the spring tension for the right stick.
- Vertical movement spring tension set screw
- Horizontal movement spring tension set screw

Step 10



- Reconnect the cable linking the front and back halves of the transmitter.
- Close up the case and enjoy your Mode 2 transmitter.

To change from Mode 2 to Mode 1, use the same instructions but swap the left and right stick references.