

Xbox series X [S] controller mini wheel



pixel2

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Summary

Rack and pinion steering for your xbox series X [S] controller. 100 degrees of rotation. Enjoy finer control in racing...

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Rack and pinion steering for your xbox series X [S] controller. 100 degrees of rotation. Enjoy finer control in racing games.

What you need:

608 bearing, 22mm diameter, 7mm thick, 8mm center. Get one from that dusty fidget spinner you have laying around...also skateboard bearings

superglue

WARNING: over time the frame will create shiny patches on your controller. It's only cosmetic damage.

Print Settings

.2 layer height (.4 nozzle)

0 top/bottom layers

10 walls - makes parts solid

supports are built in

Tolerances are tight on this model and good layer adhesion is a must. Make sure your printer is properly calibrated before attempting this project.

Post-Printing

Break off the support piece.

Snap the lever into the frame. One leg has a bump, this goes towards the back of the controller.

Snap the rack into the pivot.

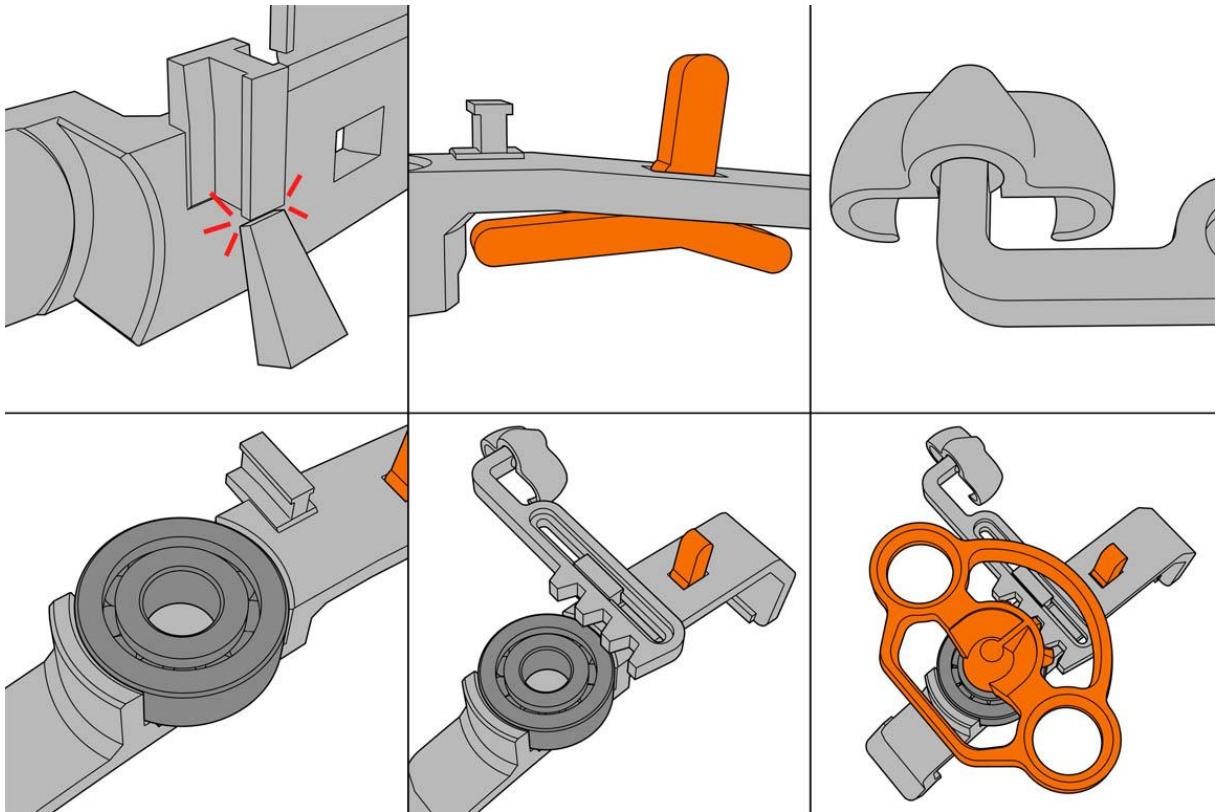
Glue the top and bottom edge of the bearing into the frame. Wait for glue to dry. Superglue might leave a white haze on the controller if it's not dry.

Snap the rack onto the frame.

Pop the frame on the controller. It's good practice to hook the front on first and then lock in the back tab. Reverse when removing it.

Slide the pivot down on the stick. The ball joint should be in the center. Align the bottom edge of the pivot so it's parallel with the rack. The stick should return to the neutral position when pushed to either extreme. If it's sticky, sand down the joint end of the rack and test motion again.

Center the wheel on the rack and press it into the bearing.



Model files

xs_wheel.stl



xs_frame.stl



xs_rack.stl



xs_pivot.stl





xs_lever.stl

[Find source .stl files on Thingiverse.com](#)

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