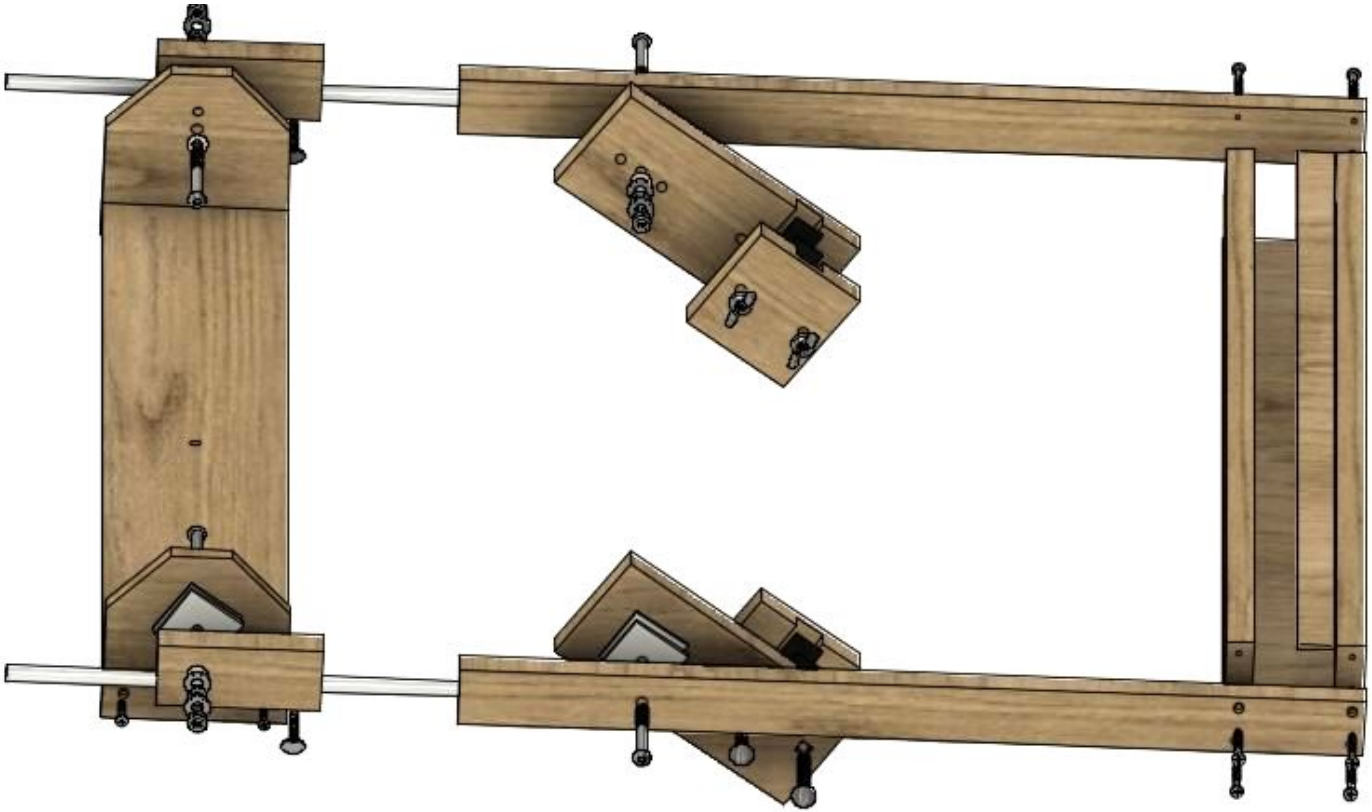
Bino-Chair Component Plans:
Teeter-Cradle for Elevation Control



MWL-2503 v1

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Getting started

Welcome to this teeter-cradle, the main component for bino-chair elevation control. It has evolved from an award winning prototype. Building it will be especially rewarding when you see how well viewing is enhanced. The primary purpose of these plans is superior functionality and user comfort, while aesthetics is only a secondary concern.

A video showing this elevation control in action is on the front page of the main site: milkywaylounge.com **This "must see" video introduces the teeter-cradle mechanics:** milkywaylounge.com/?p=837

As always, please expect a little trial and error as you build, because you're fitting to your chair's geometry. You will surely see that the results are well worth the extra effort that you put in. These plans are intended to be somewhat adaptable to fit a moderate range of typical chair sizes. These plans fit a teeter-cradle to a standard zero gravity chair frame. Adjust otherwise.

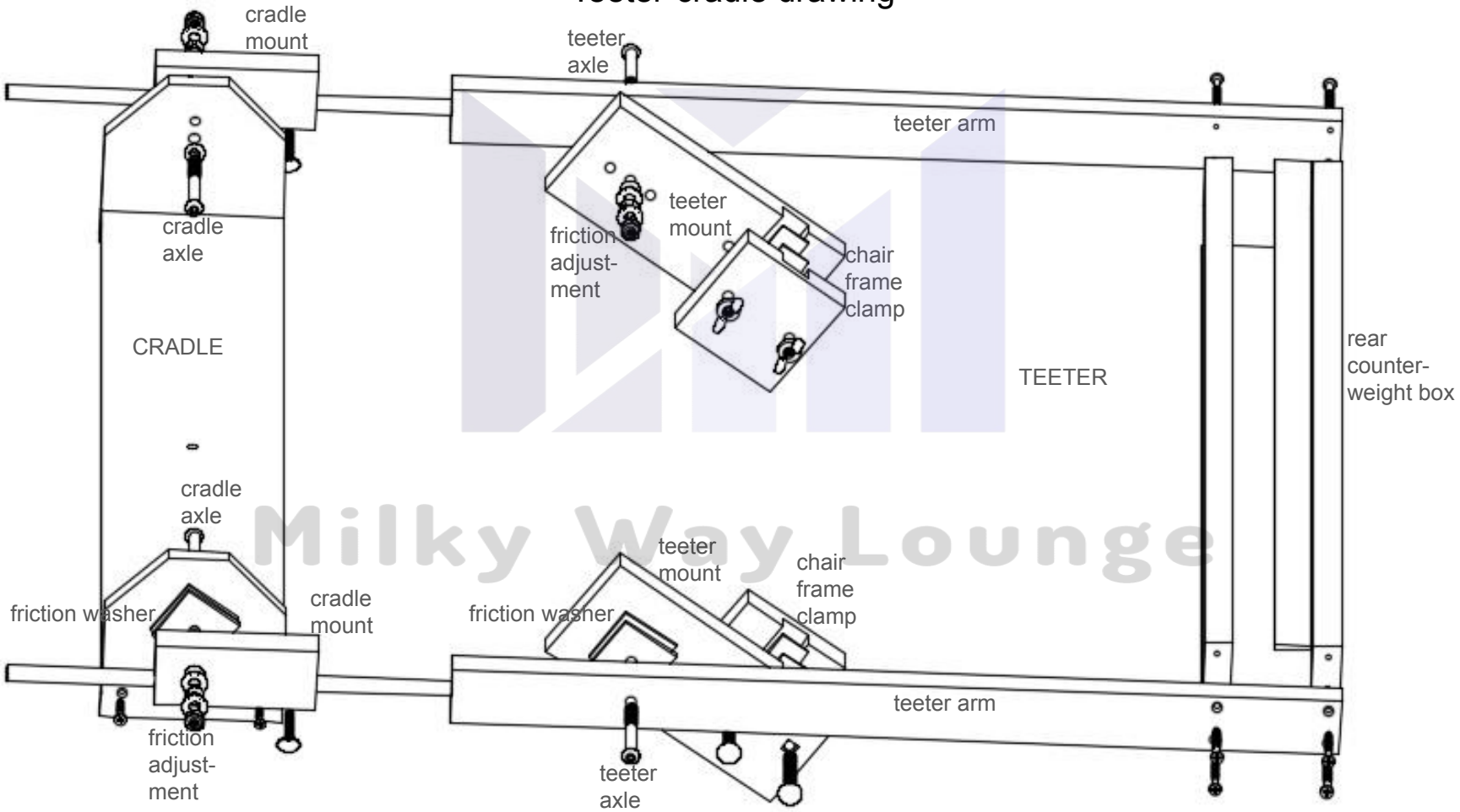
If you have not selected a chair yet, here is an important post: milkywaylounge.com/?p=641 A chair is needed for building and testing this teeter-cradle. Some customization can be employed for very different chair styles and sizes. However, one can save time and uncertainty and achieve better results by using a standard zero gravity chair. Without one, functionality will be limited, and some design aspects would need to be altered. Using an old chair that you happen to have lying around is unlikely to work out satisfactorily, and may be unsafe.

Safety is more important than anything else in this project. Never perform a construction step unless you have full confidence that it can be done safely. Workpieces must be held down or guided. Cutting equipment must be understood. Get help where unsure. Have someone available just in case.

These plans contain only relevant information, so it's advisable not to skip sections. Please publish your reviews under the main site's Reviews tab, or send an email with constructive criticism. Have fun building!

Technical support and contact: contact@milkywaylounge.com

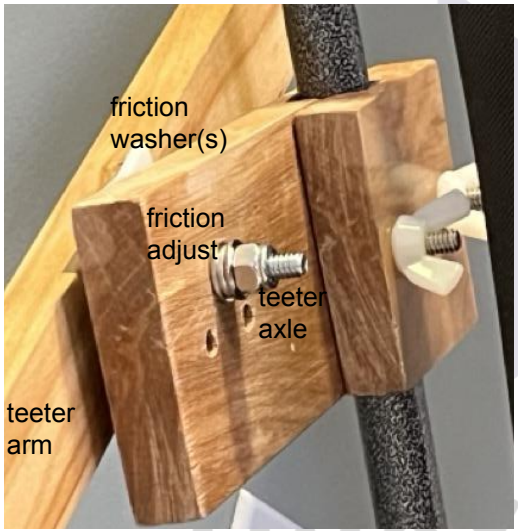
Teeter-cradle drawing



Overview of the elevation control

Teeter: This seesaw is mounted on the chair's backrest with the teeter mount blocks. When the backrest is tilted, the teeter follows along.

Teeter mount: A pair of wide blocks, is clamped to each side of the backrest (one pair pictured below). Round or square channels are cut into the blocks so that the chair frame can be clamped with bolts and wingnuts. It holds the teeter axle, connected to the teeter arm.



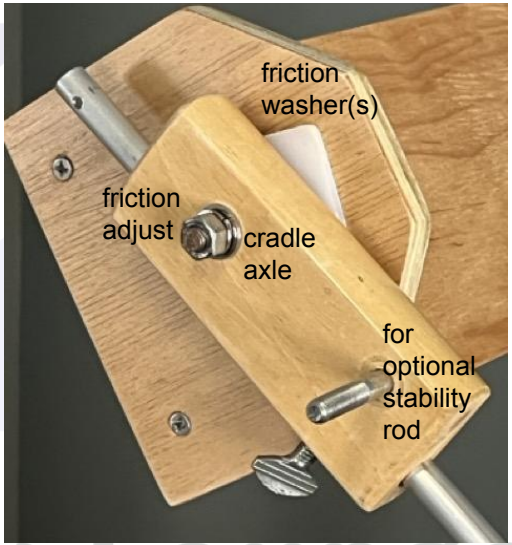
Teeter mount: one side

Axle friction: The axle's swivel friction is set by partially tightening the axle nut. On this axle a split-lock washer keeps some compression on large friction washer(s). To retain that setting, either use a nyloc nut or a pair of hex nuts with a retaining washer in between them.

Cradle: The swiveling cradle is mounted on the end of the teeter using a cradle mount block on each side.

Cradle Mount: The blocks hold the cradle axle and can slide forward and back on the aluminum tubes (one block in the foreground below).

Cradle mount: one side



Chair-front counterweight: to offset the weight of the loaded teeter-cradle. It makes it easier to tilt the chair back and forth.

Stability rods: to reduce view drifting and "heartbeat". This option is detailed in a section at the end of these plans.