



The All-Age Catapult: Unleash, Educate, Entertain!

 **ZeVeX**

[VIEW IN BROWSER](#)

updated 18. 4. 2024 | published 18. 4. 2024

Summary

Versatile 3D-printed catapult for all ages. Combines fun and education.

[Toys & Games](#) > [Other Toys & Games](#)

Tags: [toy](#) [3d](#) [fun](#) [education](#) [engineering](#) [science](#)
[learning](#) [craft](#) [catapult](#) [family](#)

Introduction: Welcome to the ultimate playground innovation – the All-Age Catapult! This isn't your average, run-of-the-mill toy. Oh no, this is the pinnacle of fun that defies age, gravity, and possibly the patience of your neighbors. Engineered by me, for the young, the old, and everyone in between, this catapult is your ticket to becoming the coolest kid, adult, or senior citizen on the block. Forget digital screens; it's time to embrace the sheer, unadulterated joy of hurling objects in a way that's educational, but mostly, hilariously entertaining.

Inspiration: The spark for this masterpiece? A simple request from my nephew, who, like many his age, is fascinated with the idea of sending things flying through the air (including his food). This got me thinking, why not create a toy that satisfies this universal itch to launch stuff, but without the mess? Drawing inspiration from the ancient war machines that once besieged castles, I designed this catapult to besiege boredom and launch an assault on monotony.

Design Philosophy: My All-Age Catapult is more than just a plaything; it's a crash course in applied physics, minus the homework and exams. It's about getting hands-on with concepts like leverage and trajectory without even realizing you're learning something. I made sure the design is idiot-proof and child-proof, ensuring that the only thing you'll need to worry about is how to explain to your friends why you're so obsessed with a catapult.

Features:

- **Versatile Play:** Whether you're aiming to break records in your backyard or conducting impromptu physics experiments in the living room, my catapult has you covered. It's like having an amusement park ride in your pocket, but without the long lines and overpriced food.
- **Educational Value:** It turns out you can learn a lot from sending miniature objects flying through the air. Who knew? Perfect for budding scientists and curious minds of all ages.
- **Quality Construction:** Built to endure the enthusiastic handling of both overexcited kids and competitive adults. This catapult doesn't just launch objects; it's designed to launch countless hours of fun.
- **Family-Friendly:** A tool for unity, my All-Age Catapult is the perfect excuse to gather everyone and bond over who can make the cat duck the fastest. Just kidding. Please don't launch things at the cat. Or do. I'm not here to judge.
- **Sling Bowl Capacity:** The sling of the catapult can hold up to 12mm, making it perfect for launching a variety of objects.
- **Part Tolerances:** The parts are designed with a 0.2mm gap tolerance, ensuring that anyone with a 3D printer can produce compatible components.

Assembly: When assembling the sling of your catapult, you will find small supports designed to aid during the 3D printing process. These supports are meant to be broken away easily once the print is complete. Make sure to remove them to ensure your catapult functions smoothly.

Printing Instructions: Use a standard profile with a 0.4mm nozzle and 0.2mm layer height. Infill can vary depending on your preference and the desired weight. For the projectile, you might consider 100% infill for added weight, although 15% works well too. PETG is recommended for better shooting power and durability. PLA also works but may not shoot as far.

Projectile Information: I've included an additional file for a projectile that I've tested—it flies very well and very far, so please be cautious! There are many different designs possible for projectiles, and you're welcome to create remixes. When loading the catapult, place the pointed

end of the projectile into the sling, with the semi-spherical part facing away from the scoop.

Game Idea: Grab a cardboard box, punch several holes in it, and assign points to each hole. Now, you've got a fun target game! Challenge family and friends to see who can score the highest by launching objects into the holes. Instant backyard fun!

Conclusion: The All-Age Catapult isn't just a toy; it's a revolution in play, disguised as a piece of ancient siege equipment. Born from my desire to create something universally fun and mildly educational, it invites everyone to explore the wonders of physics, or at the very least, enjoy the thrill of launching inanimate objects into the stratosphere. Get ready to turn any boring day into an unforgettable adventure of flight and discovery. Grab your All-Age Catapult and let the games begin!

Photo Credits: All images provided by @bequ3. Assembly instructions are clearly shown in the images. Make sure to check out his phenomenal designs!

Your Feedback: I'm all ears! If you've got bright ideas, tweaks, or outright revolutionary changes to suggest, don't keep them to yourself. I believe in continuous improvement and know that the best ideas often come from the community. So, whether it's a new feature, a design modification, or something else entirely, let me know. Together, we can make the All-Age Catapult even more awesome. Share your thoughts, and let's catapult into greatness!

Model files

katapult_complete_v11.stl



seitenteil_linksstl.stl



seitenteil_rechtsstl.stl

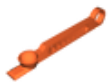




spindel-rechtsstl.stl



spindel-linksstl.stl



schleuderstl.stl



projektil_v1stl.stl

License

This work is licensed under a
Creative Commons (4.0 International License)



Attribution-NonCommercial

- ✗ | Sharing without ATTRIBUTION
- ✓ | Remix Culture allowed
- ✗ | Commercial Use
- ✗ | Free Cultural Works
- ✗ | Meets Open Definition