



Mini suanpan (abacus)



Robert

[VIEW IN BROWSER](#)

updated 4. 5. 2023 | published 4. 5. 2023

Summary

"Mini suanpan (abacus)" is a little three-rowed functionable chinese abacus (suanpan).

[Learning](#) > [Math](#)

Tags: [abacus](#) [suanpan](#)

"Mini suanpan (abacus)" is a little three-rowed functionable chinese abacus (suanpan).

I desinged a 3D model of the abacus frame and the counting beads after original wooden abacus. The beads are big enough and well-shaped to give a nice feeling while touching them with fingers.

While original suanpans have ten or more rows with beads, this one has only three to demonstrate or learn calculating with it.

The abacus has to be assembled, but it is easy: first the beads have to be pushed onto each of the axes; then the axes with beads have to be pushed into the frame, where they snap in. It is recommended to take a harder object (I use the bottom end of a screwdriver handle) and use it to press the axes - carefully! - into the frame.

Be sure to line up the axes into the right rotation: there are three little noses on the left and right side of each axis, which snap into the three

frame's strivings, and the noses' distances relate to the position of the frame's strivings.

Also be sure to split up the right number of beads in the upper and lower half of the axes (upper half: two beads, lower half: five beads).

For assembling you will need 1 frame, 21 beads and 3 axes.

I designed the 3D models of all parts in Shapr3D, spliced them with PrusaSlicer and let them print with my Prusa i3 Mk3. Supports are not necessary.

Model files



suanpan-counting-bead.3mf



suanpan-counting-bead.stl



suanpan-triple-frame.3mf



suanpan-triple-frame.stl



suanpan-axis.3mf



suanpan-axis.stl

License ©

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



Attribution

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