



BAXTER Robot Elastic Pen Holder

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VIEW IN BROWSER

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Summary

Currently (April 2017), I'm a PhD candidate at the Centre for Robotics and Neural Systems, Plymouth University,...

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Tags: [robot](#) [feltpen](#) [baxter](#) [endeffector](#)

Currently (April 2017), I'm a PhD candidate at the [Centre for Robotics and Neural Systems, Plymouth University](#), working with [learning \(or programming\) by demonstration using Spiking Neural Networks \(SNN\) implemented as Liquid State Machines \(LSM\)](#).

So, I designed this elastic pen holder because it's not so easy to teach a robot to draw using an uneven surface (although we have [a paper based on LSM and Sensor Fusion](#) that partially solves this problem). Also, Baxter was not designed to be super precise and [its positional accuracy is +/-5mm](#).

Hint: you should be able to reuse the same screws from the vacuum or electrical grippers.

If you liked this thing, don't forget to visit my personal website: ricardodeazambuja.com

DISCLAIMER 1: use it at your own risk ;)

DISCLAIMER 2: Baxter is a **cobot**, but it is only safe to interact with people (when using **Joint Position or Velocity control modes**) if a risk assessment is done every time you add a new end effector. So, be careful if you decide to use this pen holder (don't forget about Disclaimer 1).

Print instructions Category: Robotics Print Settings

Printer Brand: LulzBot

Printer: TAZ 6

Rafts: No

Supports: No

Resolution: 0.2mm

Infill: 40%

Notes:

You need to activate the full settings (Cura menu Expert, Switch to full settings) to change the infill. And don't forget to click "Yes" when Cura asks if you want to copy the settings from quickprint ;)

How I Designed This

Final assembly in Fusion 360

Model files



solidbaseslider.stl



pen_attachment.stl

[Find source .stl files on Thingiverse.com](https://www.thingiverse.com/thing/4511111)

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