Piccolo cnc drawing robot

Piccolo is a mini cnc robot that allows you to draw on flat surfaces. The robot can be programmed via Arduino or via a visual coding software such as mBlock.

⚠ Difficulté Difficile

① Durée 20 heure(s)

Catégories Électronique, Machines & Outils, Robotique

① Coût 50 EUR (€)

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Introduction

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Une version française de ce tutoriel est disponible ici.

Matériaux

Instructions on how to create a replica of the piccolo robot, including a list of parts, are available <u>here</u>.

Outils

laser cutter, general purpose DIY tools, computer

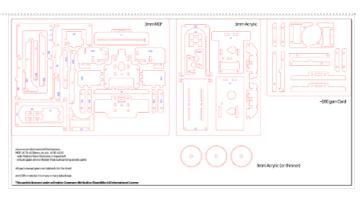
Étape 1 - Create your own piccolo robot

Instructions on how to create a replica of the piccolo robot are available here.

The robot is functional even without the z-axis. Assembling the z-axis is in fact quite complex, and the result is not a lot different than a piccolo robot with only x and y axis.

The design of the piccolo parts is available <u>here</u> in .svg format, which we believe is the most convenient of all.

Finally, note that, for the laser cutting of the piccolo robot, you may use mdf or another type of wood exclusively. Acrylic is in fact a lot more expensive than wood, and the robot works well even with all parts being made out of mdf or similar material.



Étape 2 - Program the piccolo robot

You can program the piccolo robot to have it draw simple shapes (squares, rectangles) or text.

To program the piccolo robot you may use mBlock. Download mBlock $\underline{\text{here}}$.

On mBlock, the code to control piccolo may look something like this:

```
when / clicked
show variable x set x to 0
set y to 90
show variable y forever
set servo pin angle as x
set servo pin angle as y

when right arrow key pressed
change x by 15

when up arrow key pressed
change y by 15

when left arrow key pressed
change y by 15
```

Notes et références

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