





# 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.

 Difficulty **Hard**

 Duration **20 hour(s)**

 Categories **Electronics, Machines & Tools, Robotics**

 Cost **50 EUR (€)**

## Contents

Introduction

Step 1 - Create your own piccolo robot

Step 2 - Program the piccolo robot

Notes and references

Comments

## Introduction

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.

Une version française de ce tutoriel est disponible [ici](#).

## Materials

Instructions on how to create a replica of the piccolo robot, including a list of parts, are available [here](#).

## Tools

laser cutter, general purpose DIY tools, computer

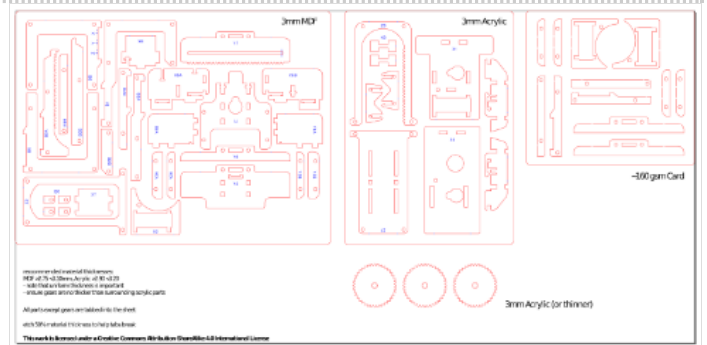
## Step 1 - Create your own piccolo robot

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 [here](#) 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.



## Step 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 [here](#).

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



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## Notes and references

This tutorial was produced as part of the FabEdu project, co-financed by the Erasmus + Programme of the European Union.

Project number: 2017-1-FR02-KA205-012767

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