
MOGOOOL

Release 1.0

Apr 19, 2020

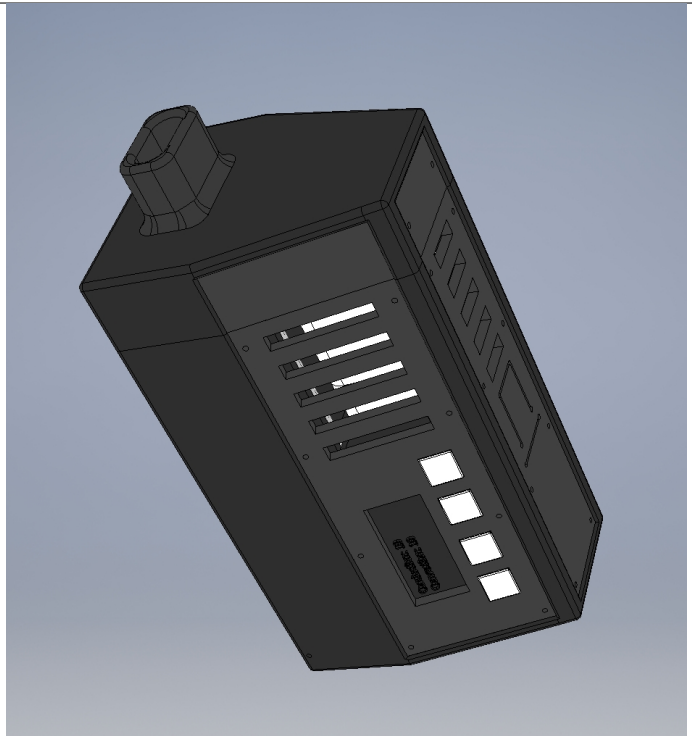
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The official website of the project - www.mogool.com

The [GitHub](#) page of the project

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I do not promise you that the way you chose will be simple, but the result will be rewarding. Please keep in mind that my goal here is to share with you my knowledge and make you believe that you can do everything (if you want). If you are looking for a cheaper way to get a good vaporizer, probably, this website is not for you. However, even in this case, I suggest you pay a little bit more attention to the information represented here. I am sure you can find this project interesting for you too.

Please, follow my instructions. If you have some questions, ask me or other people. By finishing the whole process you will have a small piece of your great creativity. And finally, you will realize, that you actually can do anything, because you have beautiful mind, and you are great.

This website is **under development**. The documentation will be published step-by-step. Please [SUBSCRIBE](#) to receive updates.

CHAPTER 1

Contents:

1.1 Introduction

Hello, my dear friend. I am happy to know that you found this page. I hope that you will find some interesting information here that will help you to get you on a new level.

If you are here, I can make several assumptions. First, you are probably interested in the subject of cannabis, second, you are a creative person, and you are looking for an opportunity to fulfill your intention to make your idea real. I am just like you, I am inspired by creators and I want to be one too.

Being just a consumer is boring. If we only consume, we do not fill our true nature. Nobody cares what car Bill Gates drives. Nobody cares what pants Elon Musk wears. What we care about is what these people create. Creativity is a new King in the modern world! Humans always tried something new. This habit made us get where we are now.

Being a creator is great. It does not necessarily mean that you must create an electronic device. Being a creator means doing something new to you. If you start doing something new, you change your reality. And this is the purpose of every creator. You can come up with a new approach to teach people or to manage people. Or you can write a poem, or draw a picture, or start video blogging.

I made an electronic device, I enjoyed it, and I want to share it with you.

1.1.1 About me

My name is Nick. I was born in 1984. I had been working in the financial industry for almost all my career, but I always was an engineer by nature.

I was 34 when I have decided to make this project. I knew nothing about production and design. After one year I finished my device. I have learned 3D printing, 3D scanning, laser cutting, 3d engineering design, molding and casting, CNC, electronic board soldering, programming and many more. Surprisingly the result overcame all my expectations. The vaporizer is easy to use, it is portable, and it is extremely efficient compared to the vaporizers that I have tested before.

Second I am a strong believer in smart consumption, responsible consumption, consumption of herbs that will make us move further. This project is also dedicated to this idea. This open-source project is a humble attempt to inspire

you to explore the new world, the world of creativity by making the device for smoking herbs.

I can call myself “creator” now. And I want you to enjoy this powerful feeling.

1.1.2 The purpose of the project

The purpose of the project is to give people another opportunity to learn something cool. Especially for those who empower their creativity with the help of cannabis. Those people are the most curious to live. Those who want to go further in their way of self-development. People, who smoke cannabis in major try to overcome their abilities and be open-minded to many things. Therefore, I believe that there is a group of people who will be interested to repeat what I did and get a beautiful piece of their creativity. They will make something functional and cool from a bunch of different materials.

I hope you are one of them. If so, I can promise to you that you will have fun, when you finally turn the device on and make the first shot. You will understand that you actually CAN create. You can make your dreams come true.

1.1.3 Smart consumptions concept

“The key to living without regrets is accepting responsibility for your own decisions and staying committed to a full and productive life - not mindless obedience”

Steve DeAngelo, “The manifesto of cannabis”

Herbs should help you to grow, to become better. If you decided to consume it, be responsible for your life, your behavior, and everything that happens to you. Respect other people, and try to figure out how to benefit from consuming herbs.

I want to support the idea of smart consumption with my project. You can not just buy and smoke. You can educate yourself, and create a useful device, that will help you to figure out, how different temperature affects the effect that user has.

1.1.4 Future plans

Honestly, I just want to find like-minded people. When I find such people, I will be happy to create something together. People, who can risk, who can support. It would be great to have new friends and connections. I believe, that anyone can get anywhere if he or she has a great team.

1.2 What about tools?

You probably will be surprised, but there are many options for you to build your electronic device. Yes, you can do it at your garage (if you have one). But in this case, you will need to buy a lot of different equipment. I suggest you to start from collaboration with the local workshop in your town. Several organizations build the network of the workshops, where creative individuals and companies can prototype their products. I suggest you to google the following words together with the name of your city or country:

- FabLab
- Fabacademy
- Makerspace
- Hackspace

I am pretty sure you can find some options not far from you.

1.3 1 - Body (under dev.)

The information is about to be updated. The documentation will be published step-by-step. Please [SUBSCRIBE](#) to receive updates.

1.3.1 1.1 Description

The body of the device has two parts. The bigger part has all the electronic components and heating chamber. The smaller part is the cover and it has a smoking pipe inside it.

1.3.2 1.2 Materials

Filament for the printer.

As I recommend to use raisin 3D printer, the filament should be high-temperature resistant. However, you can try to experiment with different filaments and types of printers. Please, keep attention to the specification of the filament and do not use it if it is toxic or not heat-resistant.

The filaments that ideal for our purposes is Formlabs High Temp Resin (https://formlabs-media.formlabs.com/datasheets/High_Temp_Technical.pdf)

1.3.3 1.3 Tools

3D printer. Ideally, we need a device that uses raisin and laser for printing like [Formlabs](#)

1.3.4 1.4 Software

1.3.5 1.5 Design

1.3.6 1.6 Files

1.3.7 1.7 Preparation

1.3.8 1.8 Printing

1.3.9 1.9 Additional information

If you need professional 3D printing service, you can use online services such as [3dhubs](#) They can help you to print any necessary parts.

1.4 2 - Walls (under dev.)

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1.5 3 - Pipe (under dev.)

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1.6 4 - Inner structure (under dev.)

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1.7 5 - Chamber (under dev.)

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1.7.1 1.1 Description

The heating chamber is the main part of the vaporizer. It is the part where the herbs get hot to evaporate the compounds.

Also, this part is the most difficult to make. The material should be non-toxic, heat resistant, solid, non-conductive and easy to transfer the heat.

There are two ways of heating that common vaporizers have: conduction and convection.

Here is the picture that demonstrates the difference:

Source: kingpenvapes.com

There are pros and cons in both of these ways. Therefore, to eliminate the cons of each heating mode, it is better to combine them.

The heating chamber in this project has both ways of heating. Therefore, there are two coils. One coil heats the inner walls of the chamber. One coil heats the air that flows through the herbs.

There are three parts made of ceramic and one part (small grill) made of metal.

Assembled heating chamber with heating coils inside and wires.

1.7.2 1.2 Materials

For ceramic parts: MACOR Machinable Glass Ceramic Rod - [More information](#)

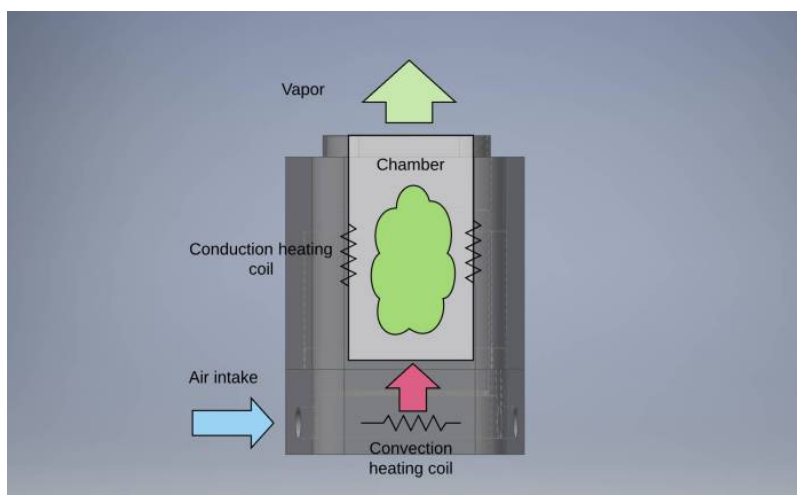
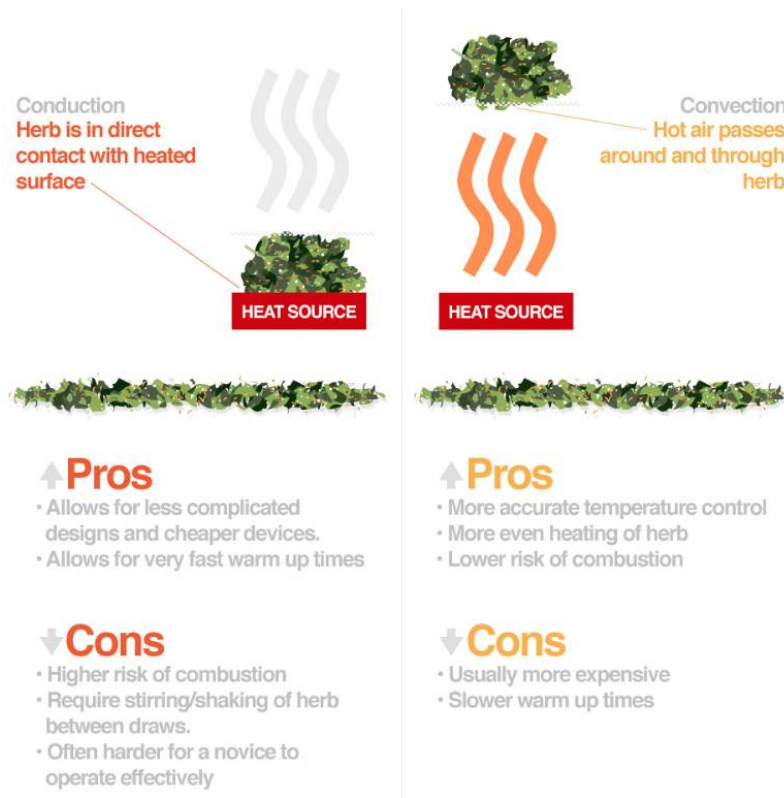
1.7.3 1.3 Tools

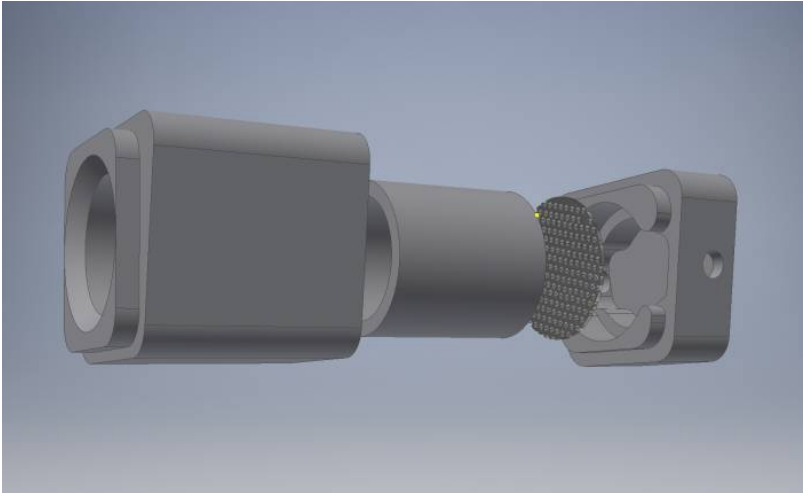
1.7.4 1.4 Software

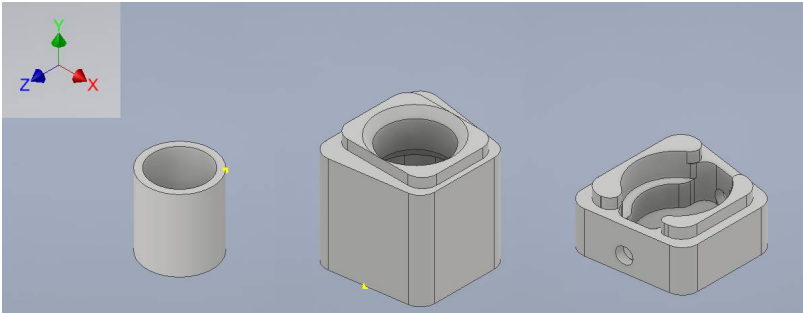
1.7.5 1.5 Design

1.7.6 1.6 Files

Links for STL files







A 3D CAD model showing three components. On the left is a simple cylinder. In the middle is a square block with a circular feature on top. On the right is a square block with a circular feature on top and a small circular hole on the side. A coordinate system (X, Y, Z) is shown in the top left corner of the image.

Size	mm		
X	15,5	20,5	20,5
Y	17	22	10
Z	15,5	22,558	22,558

1 Cylinder

2 Head

3 Bottom

1.7.7 1.7 Preparation

1.7.8 1.8 Machining ceramic parts

1.7.9 1.9 Metal grill

1.7.10 2.0 Coils and wires

1.7.11 2.0 Assemble

1.8 6 - Buttons (under dev.)

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1.9 8 - App (under dev.)

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1.10 9 - Assamble (under dev.)

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1.11 Testing (under dev.)

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1.12 Maintenance (under dev.)

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1.13 Ideas (under dev.)

When you finish the project, you will know a lot to do something that you came up with. But you also can improve my project too.

1.13.1 How to improve it

There are many areas of how you can improve this device:

- add battery level
- modify turn on/off switch
- make auto-turn off
- improve convection and conduction heating technology
- improve battery life
- chamber cooler between sessions
- add micro USB-charger
- add temperature scale
- improve the design
- make the heating chamber compatible with wax
- write your mobile app
- redesign the electronic board
- create custom parts
- other improvements

1.13.2 How to use it

In this section, I will provide some ideas to you regarding the usage of the device that you have created!

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CHAPTER 2

Disclaimer:

This website does not promote any kind of drug consumption. All the information on this website is intended to inspire visitors to educate themselves.

Some of the technologies described here should be applied only after proper training or with the help of an experienced person. Please, take this notice extremely seriously.

The materials used to create an electronic device can be harmful to health. Please, carefully read the specification of the materials and make sure that they are properly applied.

The author does not hold any responsibility for any harm or losses that the user of this website got or caused while the production process or usage of the resulted device.