

# "One House...One Engine"



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Vincent Dupont

Girardot Thomas

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1. Introduction

2. Design of tools

3. Manufacture and costs



# Contents

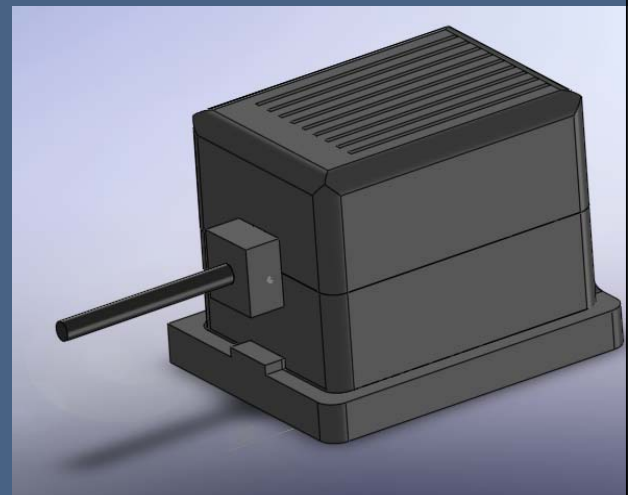
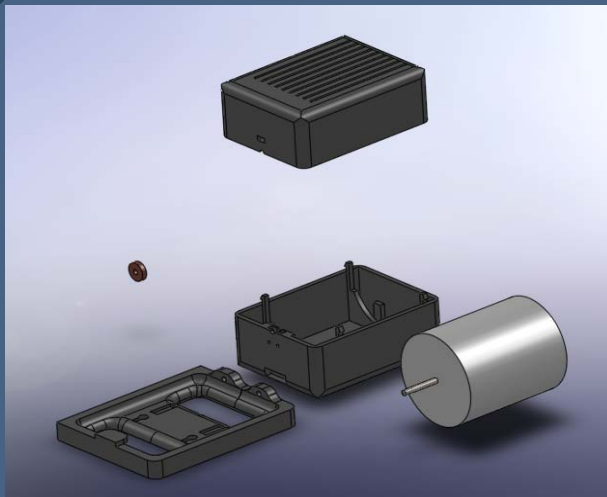
1. Introduction

2. Design of tools

3. Manufacture and costs



# Introduction





# Introduction

	April				May				June	
	1	2	3	4	1	2	3	4	1	2
Design of the compartment	Red		Red							
Design of the tools			Yellow				Yellow			
Possible prototype							Green			

↑ Presentation #1      ↑ Presentation #2      ↑ Presentation #3      ↑ Final Presentation

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- 2- Cooker
- 3- Drilling Machine

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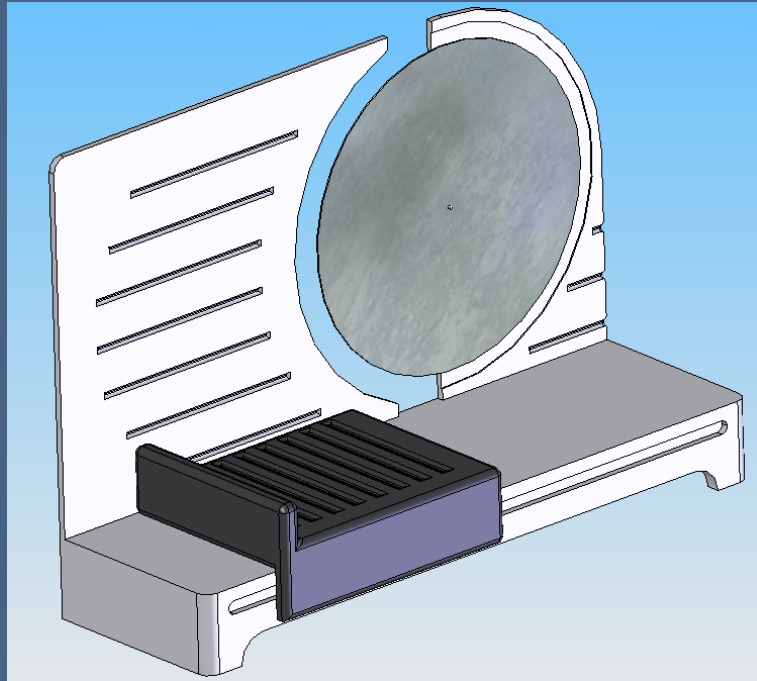
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# Design of tools

## Ham Slicer



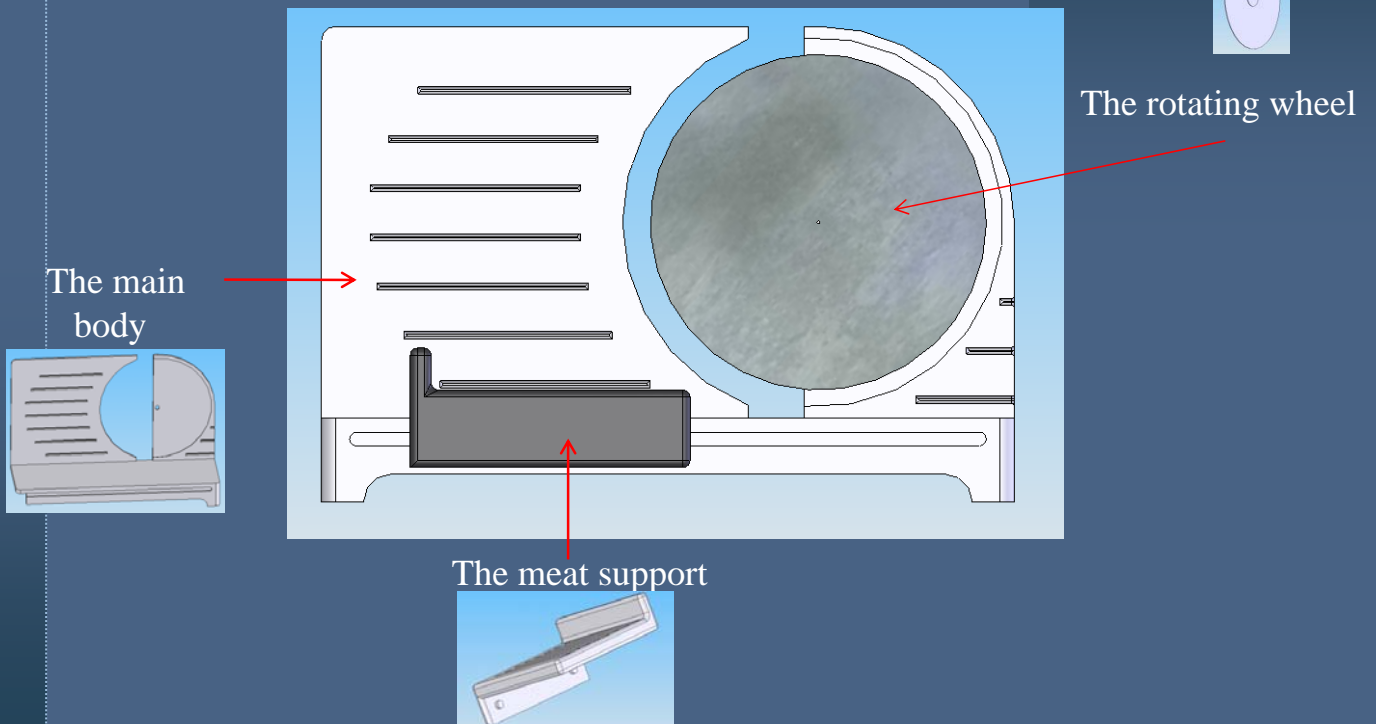
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# Design of tools

## Ham Slicer



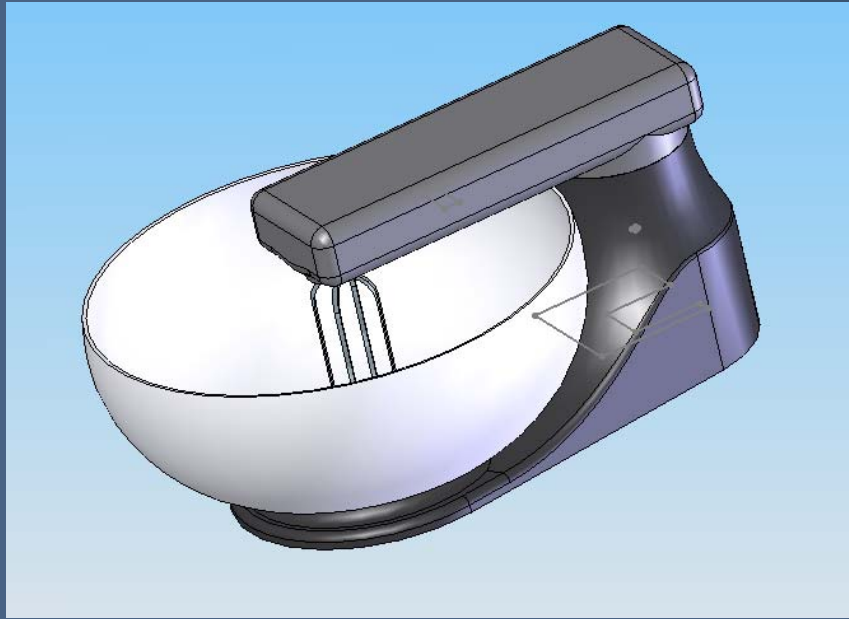
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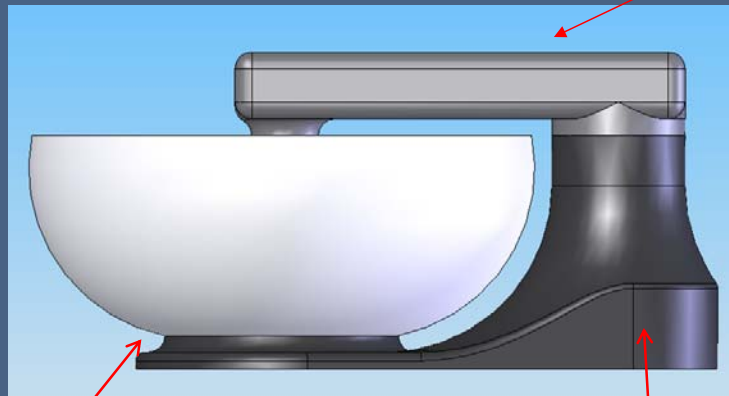
# Design of tools

## Cooker



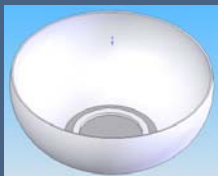
# Design of tools

## Cooker



The arm

The recipient



The main body

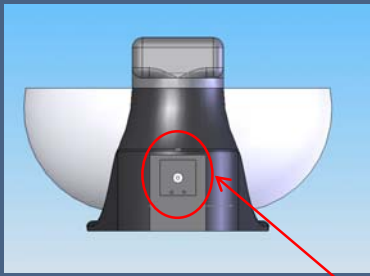




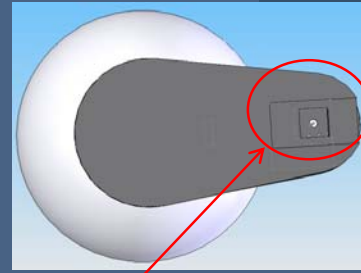
# Design of tools

## Cooker

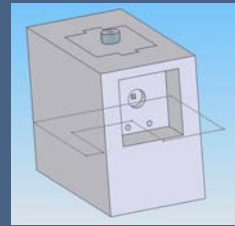
◆ Right view



◆ Bottom view



The doc

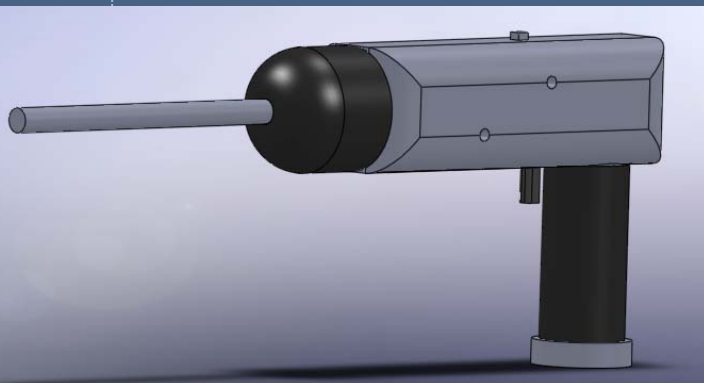


Enable to connect the engine by two different ways

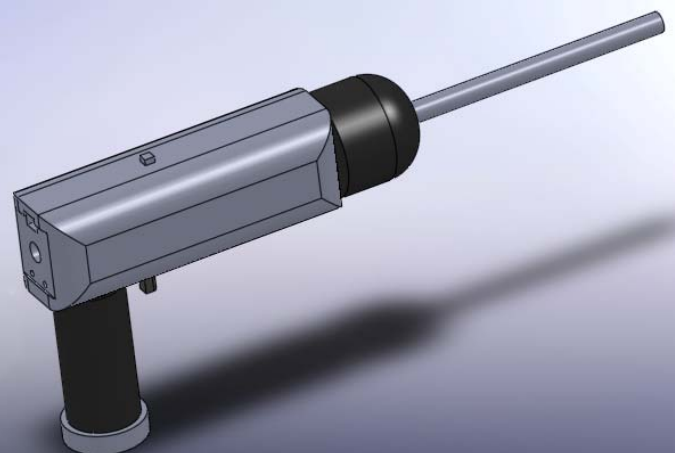


# Design of tools

## Drilling Machine



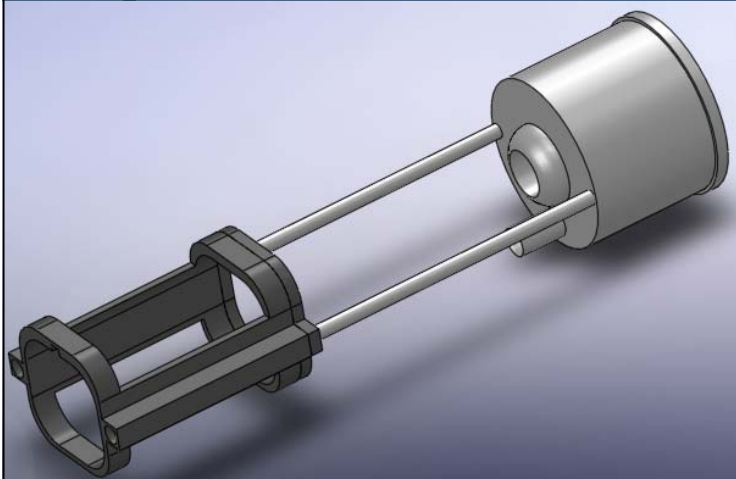
## Drilling Machine



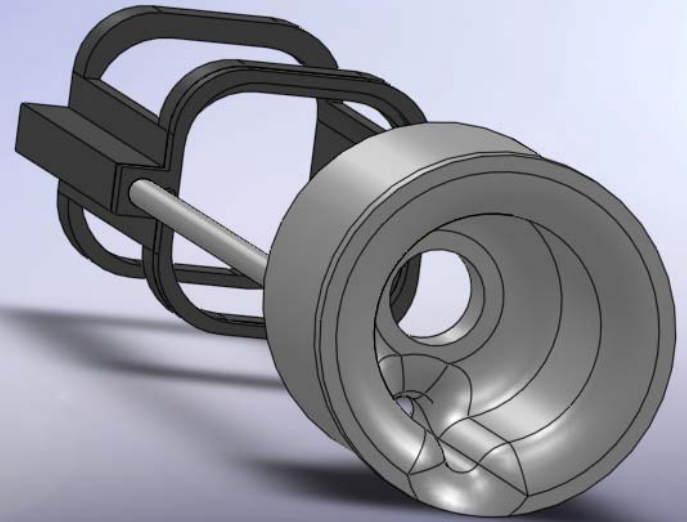


# Design of tools

## Drilling Machine



### Suction Section



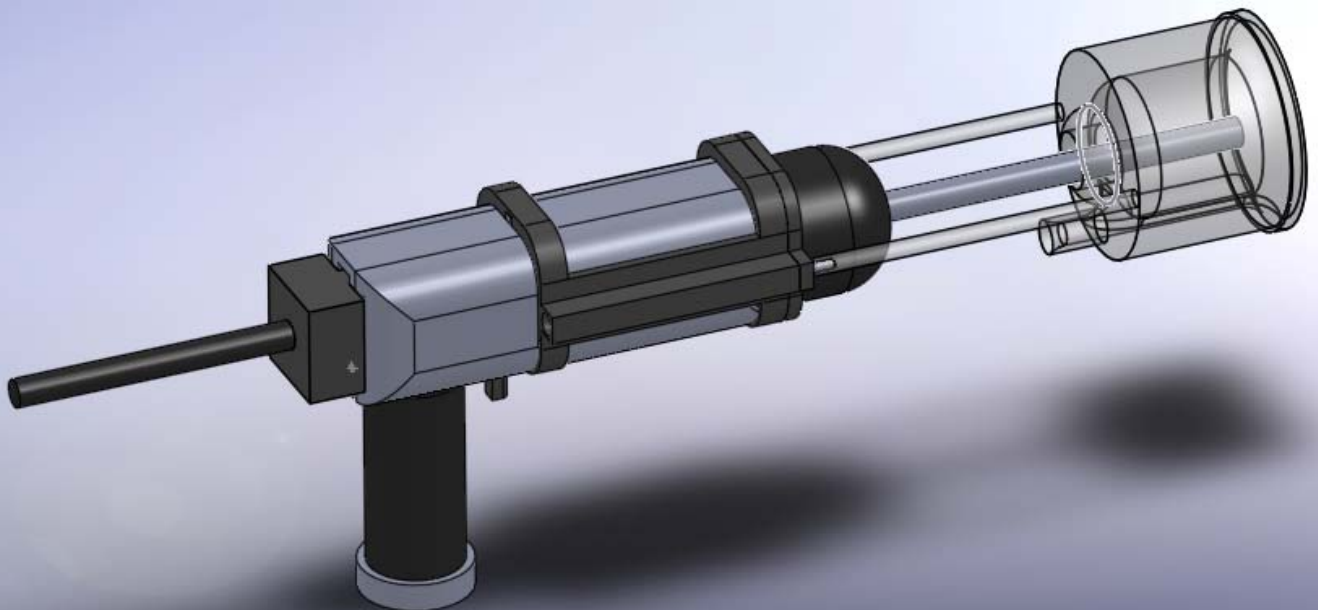
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# Design of tools

## Drilling Machine



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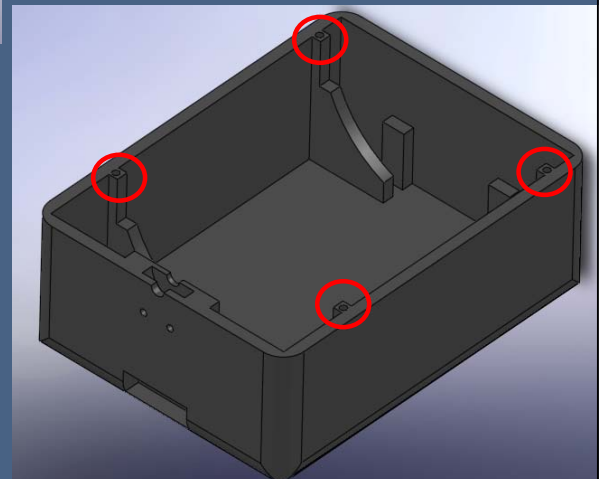
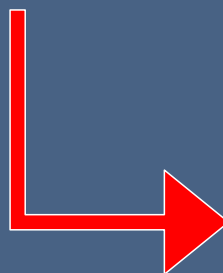
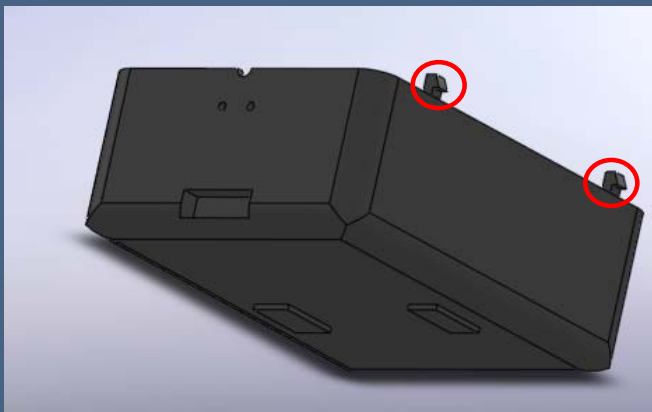
**3. Manufacture and costs**

1- Engine case

2- Tools



# Manufacture and costs

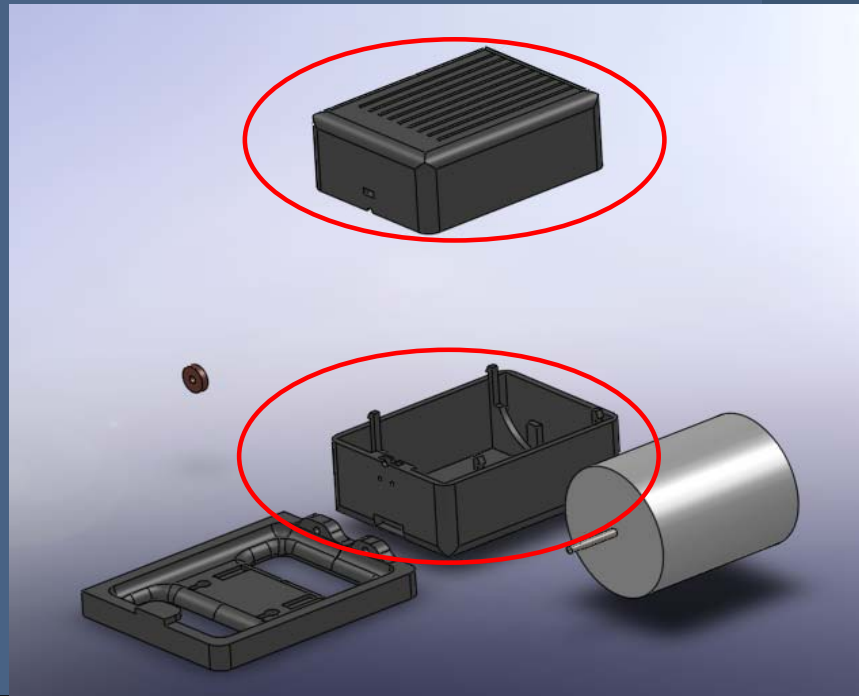






# Manufacture and costs

	Material	Process	Weight	Price
Body	PP	Injection Molding & Drilling	430 g.	7-14 KW



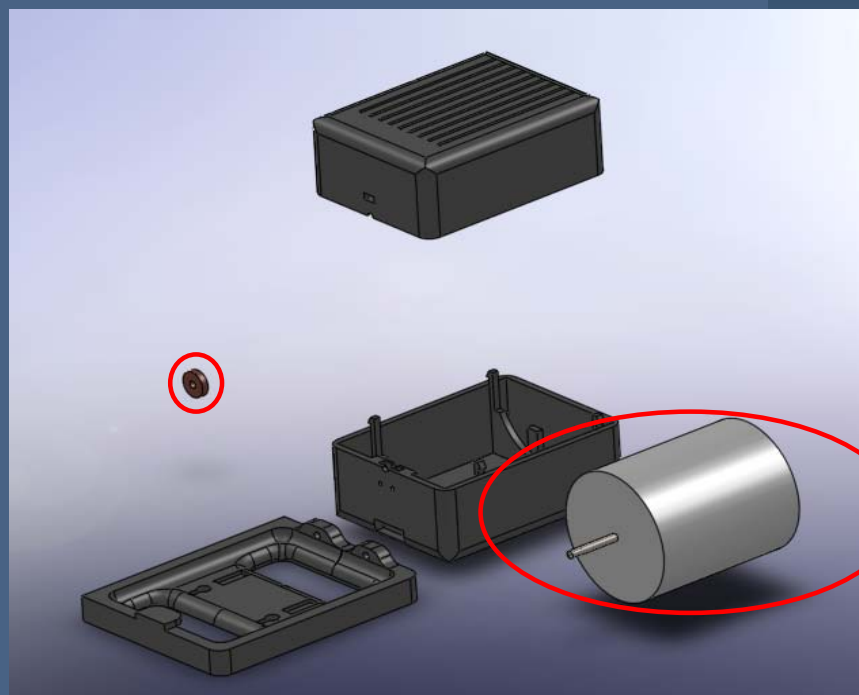
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# Manufacture and costs

	Process	Weight	Price
Engine		1,1 Kg.	14 KW



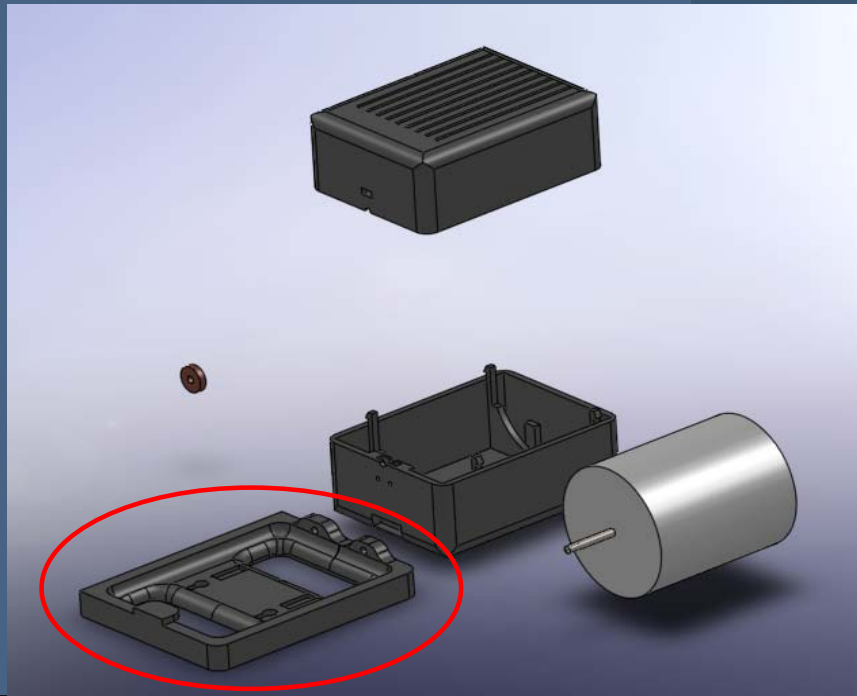
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# Manufacture and costs

	Material	Process	Weight	Price
Dock	PP	Injection Molding	224 g.	3-7 KW



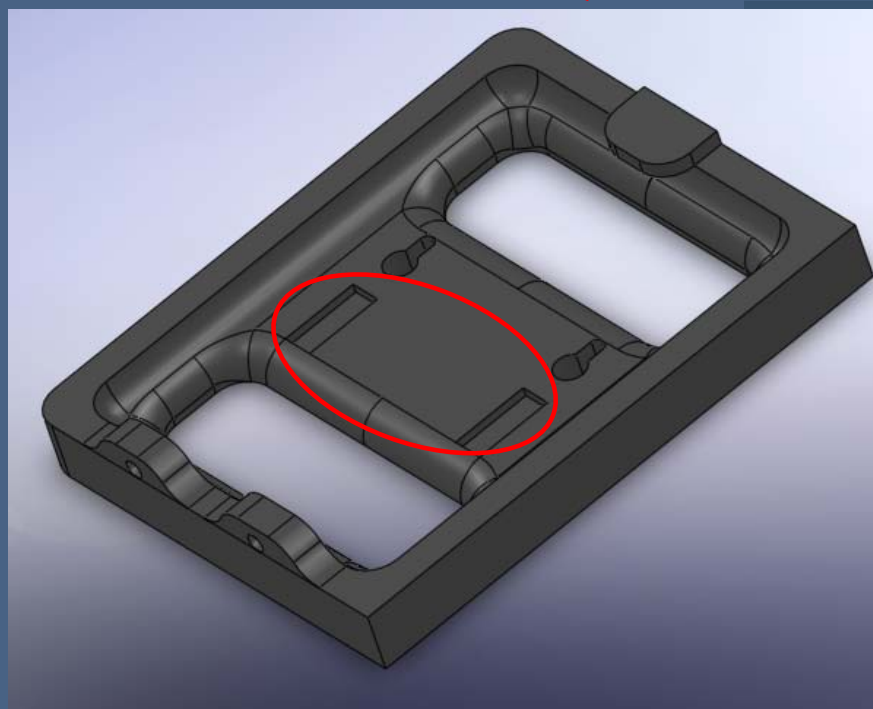
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# Manufacture and costs

	Process	Weight	Price
Energy System (Dock)		150 g.	4,5 KW



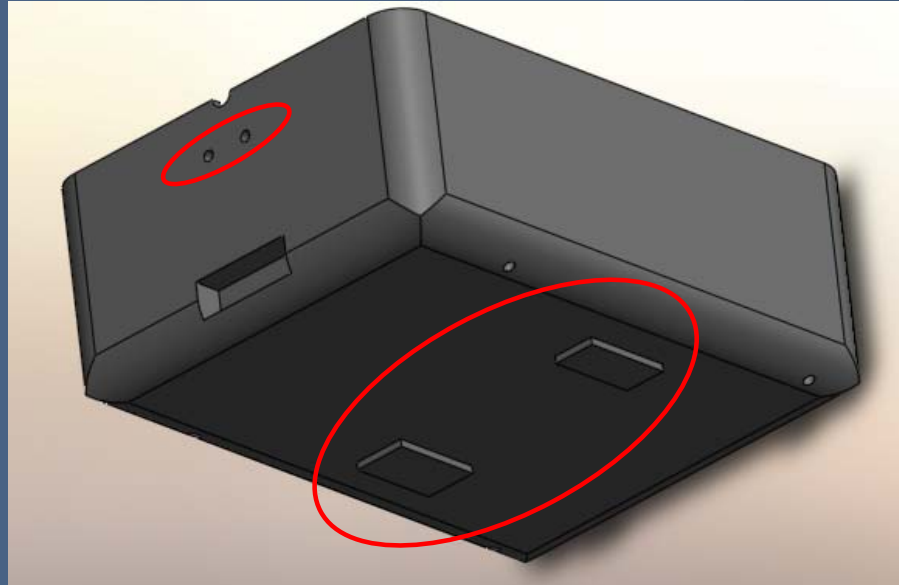
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## Manufacture and costs

	Process	Weight	Price
Control & Energy System (Engine)		50 g.	1,2 KW



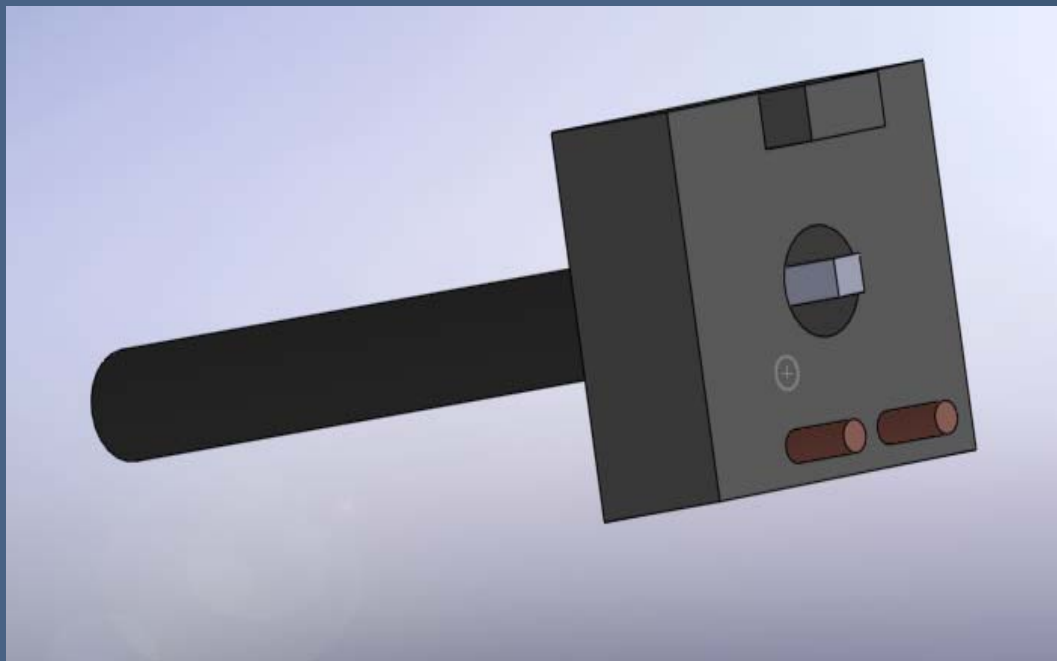
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## Manufacture and costs

	Process	Weight	Price
Cable		80 g./m	12 KW/m



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# Manufacture and costs

	Weight	Price
Body	430 g.	7-14 KW
Engine	1100 g.	14 KW
Control & Energy System (Engine)	50 g.	1,2 KW
Control & Energy System (Dock)	150 g.	4,5 KW
Dock	224 g.	3-7 KW

For a mass production of 100 000 pieces

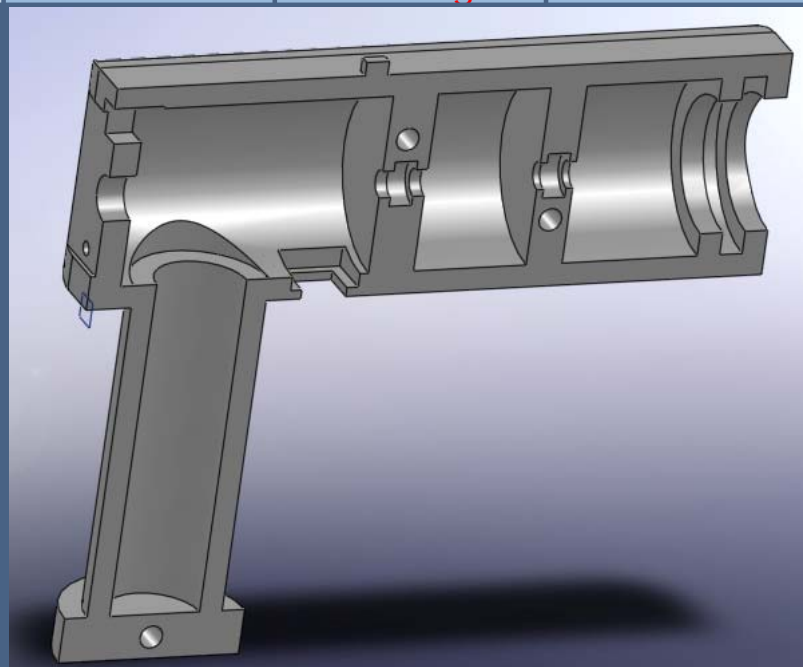
	Weight	Price
TOTAL	1954 g.	35 000 W

Cable	80 g./m	12 KW/m
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# Manufacture and costs

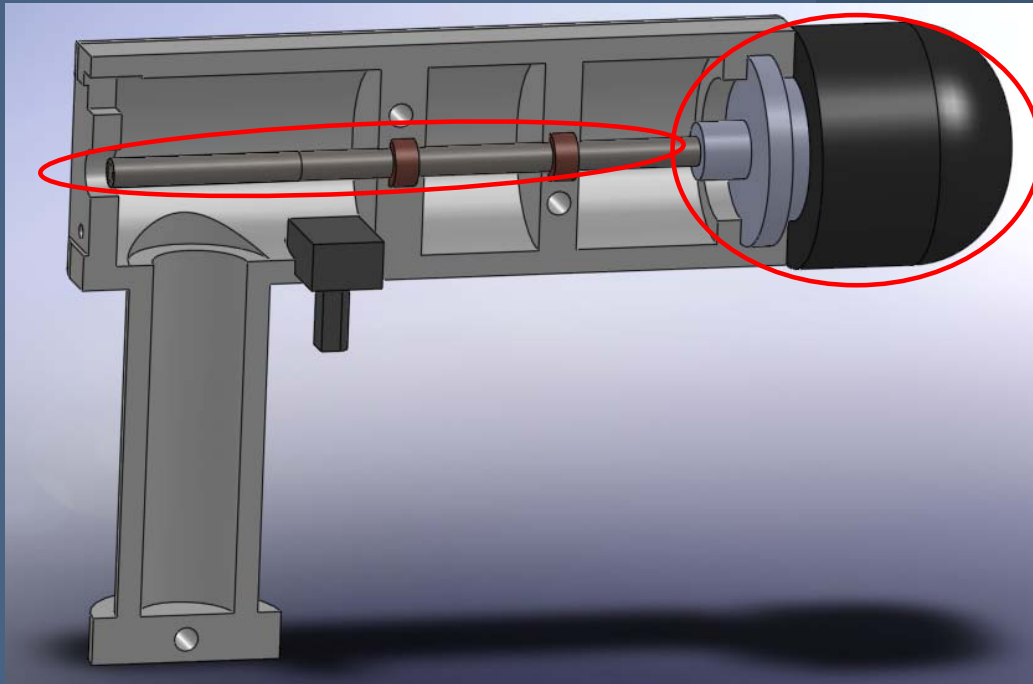
	Material	Process	Weight	Price
Body	PP	Injection Molding & Drilling	200 g.	4,5-8 KW





## Manufacture and costs

	Process	Weight	Price
Chuck		200 g.	20 KW



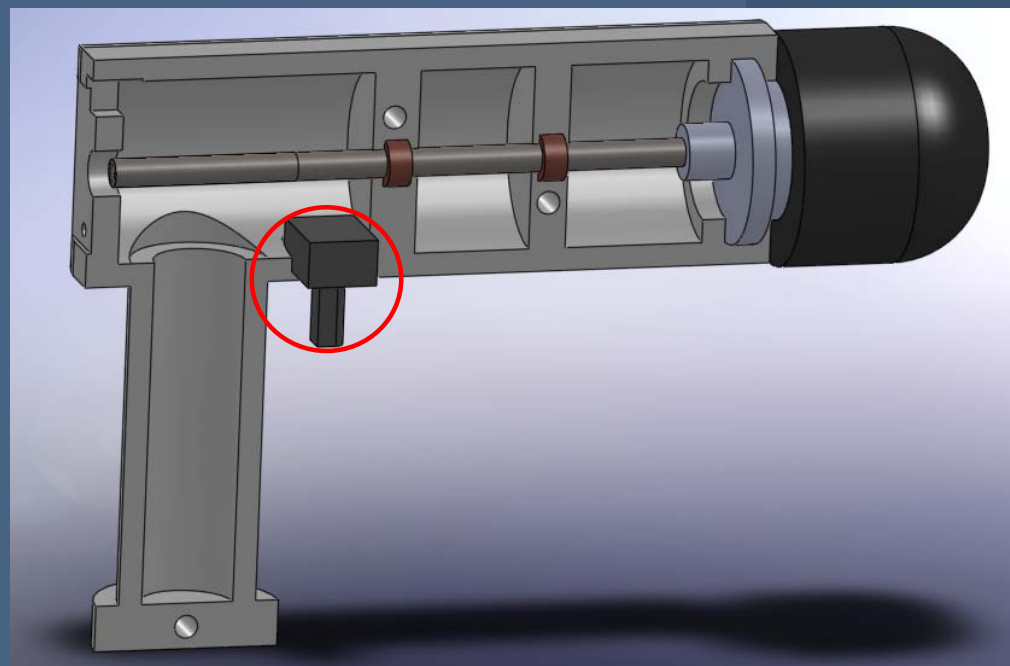
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## Manufacture and costs

	Process	Weight	Price
Control System		50 g.	2,5 KW



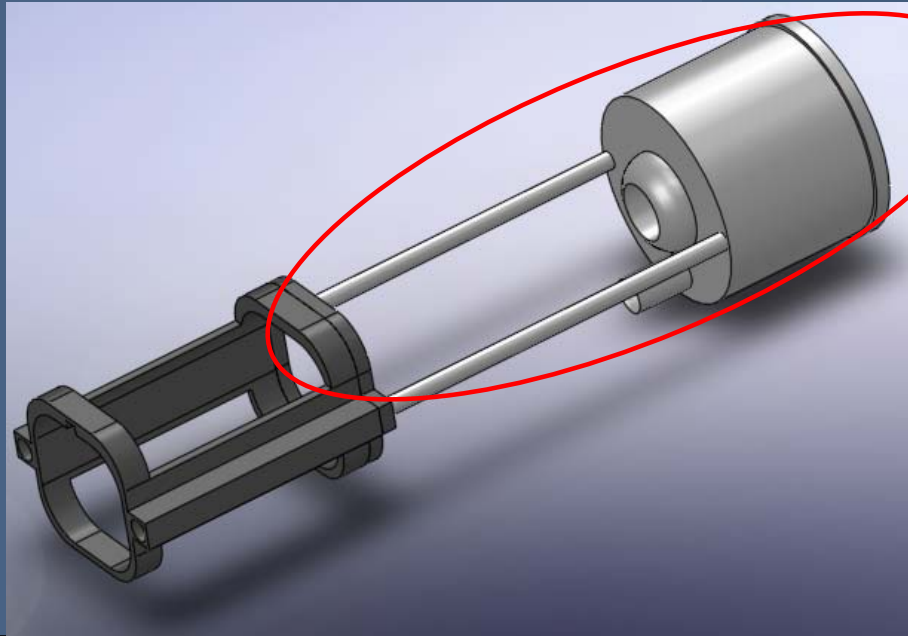
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## Manufacture and costs

	Material	Process	Weight	Price
Suction section	ABS PC	Injection Molding	160 g.	2,5-7,5 KW



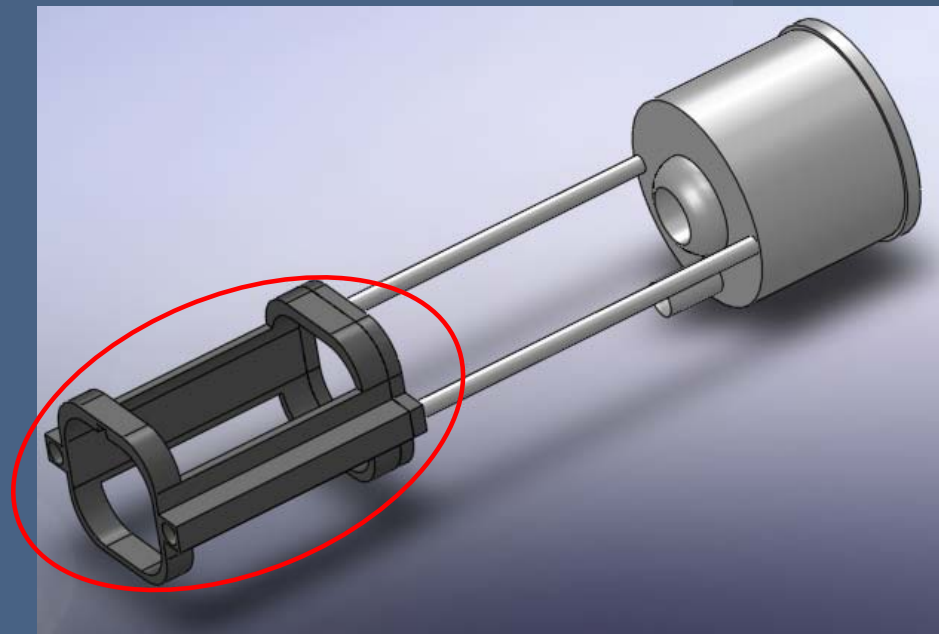
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## Manufacture and costs

	Material	Process	Weight	Price
Guide for the suction section	PP	Injection Molding & Machining	30 g.	1,5-4,5 KW



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## Manufacture and costs

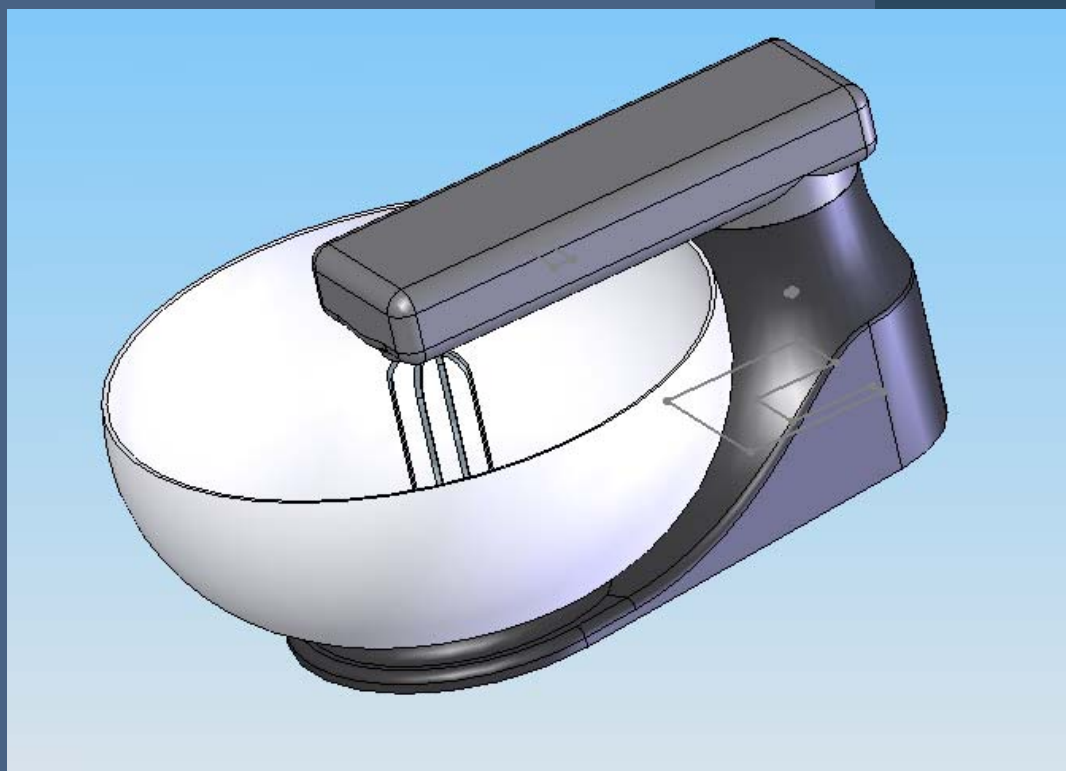
	Weight	Price
Body	200 g.	4,5-8 KW
Chuck	200 g.	20 KW
Control System	50 g.	2,5 KW
Suction section	160 g.	2,5-7,5 KW
Guide for the suction section	30 g.	1,5-4,5 KW

For a mass production of  
100 000 pieces

	Weight	Price
TOTAL	680 g.	34 000 W



## Manufacture and costs







# Manufacture and costs

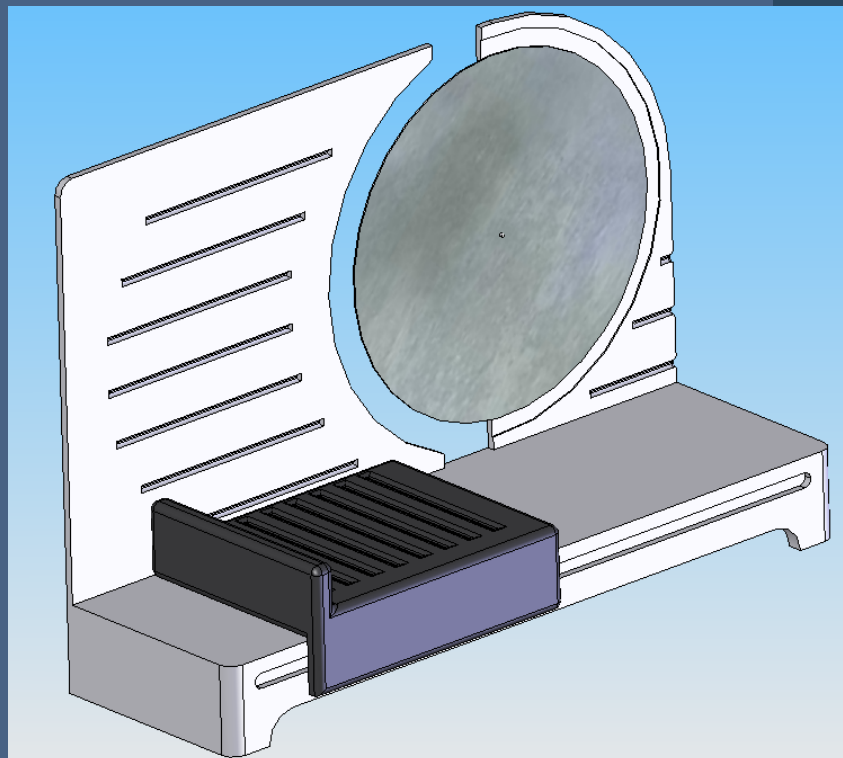
	Process	Weight	Price
Body + Dock	Injection molding (x2)	1635 g.	7-15 KW
Recipient	Injection molding	323 g.	3-6 KW
Arm	Injection molding (x2) + drilling	416 g.	2-8 KW
Metallic parts		50 g.	2-3 KW

For a mass production of 100 000 pieces

	Weight	Price
TOTAL	2424 g.	25 000 W



# Manufacture and costs





# Manufacture and costs

	Process	Weight	Price
Body	Injection molding (x4)	1360 g.	10-20 KW
Support	Injection molding + manufacturing	450 g.	2-5 KW
Wheel		500 g.	10 KW

**For a mass production of 100 000 pieces**

	Weight	Price
TOTAL	2210 g.	27 500 W



# Planning

	April				May				June	
	1	2	3	4	1	2	3	4	1	2
Design of the compartment	Red		Red							
Design of the tools			Yellow				Yellow			
Possible prototype							Green			





# Planning

Buy a Drilling Machine (1<sup>st</sup> week)



# Planning

Buy a Drilling Machine (1<sup>st</sup> week)



Build the engine box (RPM) (2<sup>nd</sup> week)



# Planning

Buy a Drilling Machine (1<sup>st</sup> week)



Build the engine box (RPM) (2<sup>nd</sup> week)



Connect the box to the drilling machine and the engine  
(3<sup>rd</sup> week)



# Planning

Buy a Drilling Machine (1<sup>st</sup> week)



Build the engine box (RPM) (2<sup>nd</sup> week)



Connect the box to the drilling machine and the engine  
(3<sup>rd</sup> week)

Write a patent (From now)



Thank you for your  
attention!!