



Yogurt
machine

MEMBERS OF THE TEAM

- Enric Daoiz as Manager
- Jordi Guimerà as Electrical Designer
- Denise Bermeo as Code Developer
- Ignasi Carbó as Mechanical Designer



OBJECTIVES

Be able to regulate the amount of toppings that the customer wants.

Be able to choose the size of the yogurt.

Be able to control the decision of the customer by an application with the phone.

Automatize the process of serving a yogurt.

IDEA ABOUT THE PROJECT



Project proposed by the team



Focused on a food sector



Automate the order process

JOB STOPPERS

That the regulation of the toppings won't go as expected, for example some toppings getting stuck.

That the refrigerator pump won't be able to push the yogurt to fill the amount of glass determined.

That the application won't connect with the components we have.





THE PROJECT IS DIVIDED IN 3 PARTS



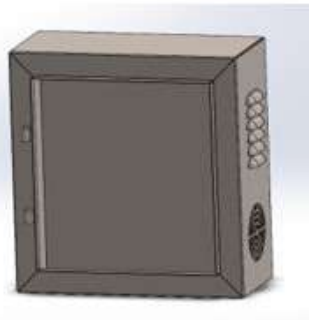
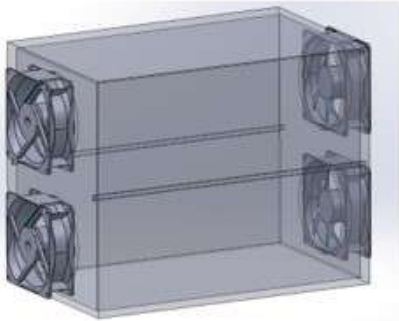
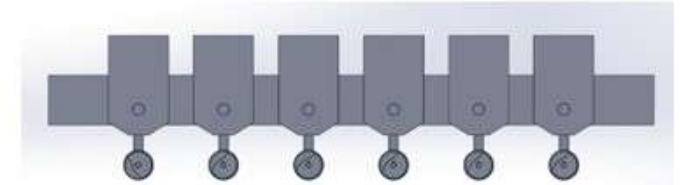
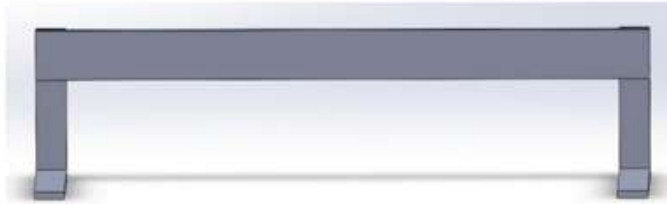
Mechanical
part



Electronic part



Programming
part

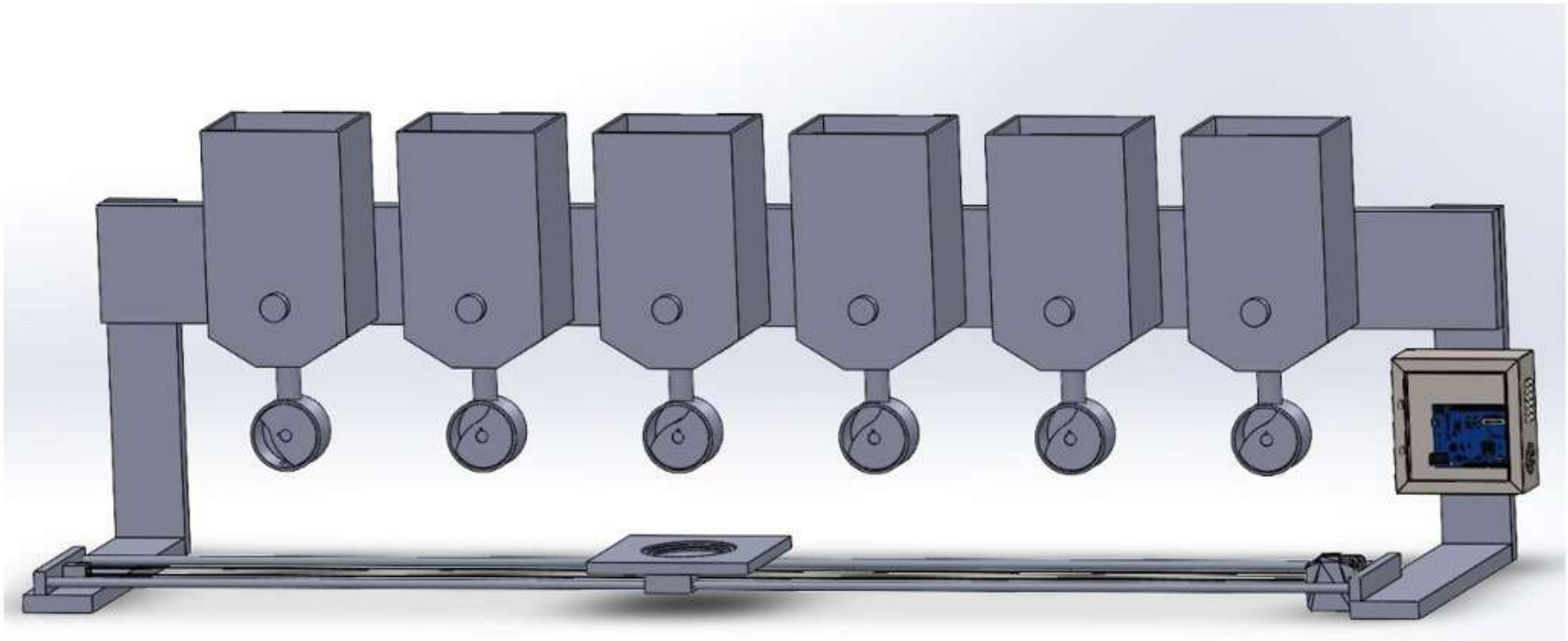


Mechanical part

The machine will be composed of the following parts:

- The structure of de machine
- Belt moving structure
- Food material dispensers
- Yogurt cooler
- Electric panel

PROTOTYPE 3D



Electronic part

In this part we will deal with the electronic components to create the connexions :



Arduino and modules.



The stepper motor to control the conveyer belt.



The motors to regulate the toppings in function of the amount we want with the specific motors.



The connexions between all the machine.

Programming part

In this part we will deal with all the code for execute the actions that we ask to do. We will find :

- The programming of the components like the stepper motor
- The creation of an application that control the actions of the different parameters that we have.

LIST OF THINGS NEEDED FOR THE PROJECT

Wood for the structure

A stepper motor

A conveyer belt and a some metal to create the track

Recipients for the toppings

A refrigerator and pump for the yogur

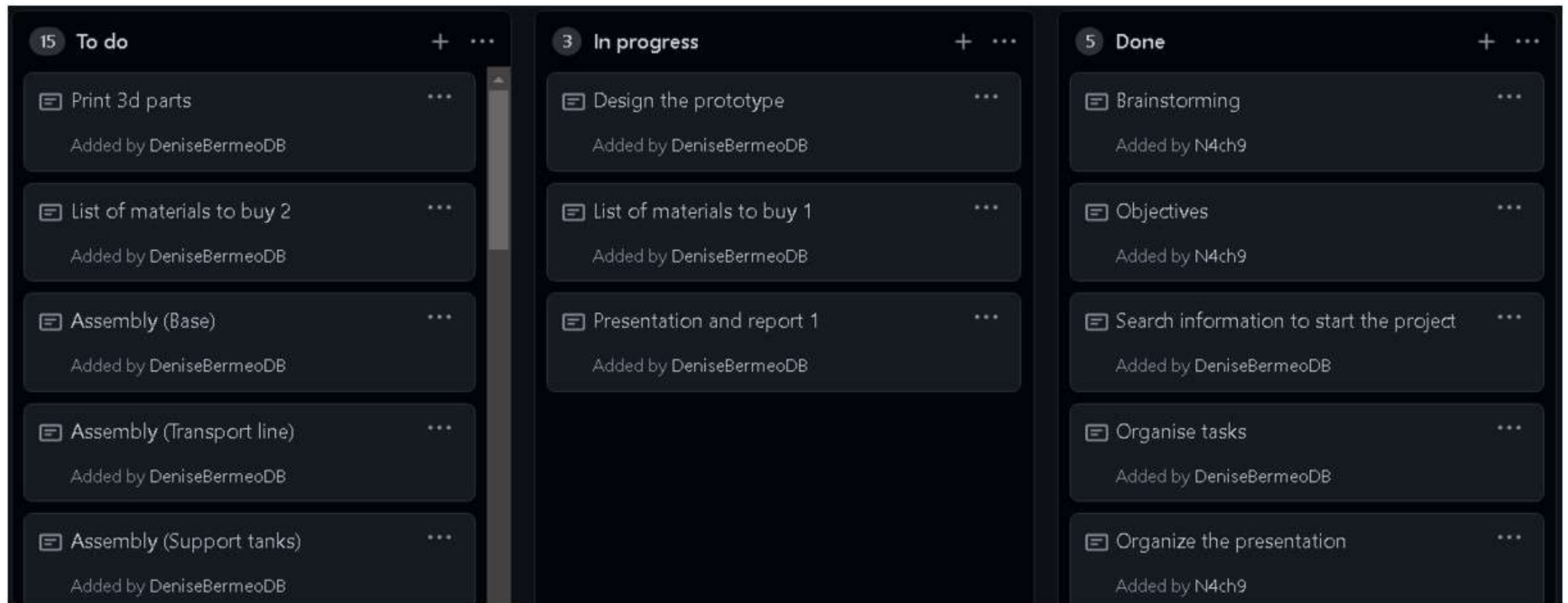
A 3d printer to create some pieces

Motors to regulate the toppings

Wires

Arduino

A Bluetooth module



PROJECT MANAGEMENT TOOLS

DISTRIBUTION OF TASKS

TASKS	February																													
	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1	2	3						
Search for information to start the project																														
Organise tasks																														
Design the prototype																														
List of materials to buy 1																														
Presentation and report 1																														
Print 3d parts																														
List of materials to buy 2																														
Assembly																														
-Base																														
-Transport line																														
-Support tanks																														
-Actuators																														
-Wiring																														
Arduino programming																														
Creation of the mobile application																														
Testing and tuning																														
Presentation and report 1																														
Video																														

Any questions?

