



TRANSPORTA
UN SAKARU
INSTITŪTS

iDEA HUB

AAF LAB

IDEA PROPOSAL: Robot Barista
(coffee making robot)

NATIONAL
DEVELOPMENT
PLAN 2020



EUROPEAN UNION
European Regional
Development Fund

Company profile

Industry:

- IT, automatization, innovation development

Directions for innovation solutions

- Automated solutions
- Robotics

BACKGROUND

- Drinking coffee has become an integral part of society, with people consuming multiple cups in a day of different varieties. Coffee robot baristas are one of the latest forms of machines in the world of coffee automation. They deliver delicious cups of coffee in the most efficient manner and with almost no errors. Several companies around the world have begun to embrace this invention.



Existing solution



- **Robot:** An articulating arm that uses computer vision to learn from human baristas to create latte art.
- Check [here](#)



- **Robot:** Broobee uses computer vision to train its robot to act like a human barista. Unlike other autonomous coffee kiosks on this list, Broobee has two articulating arms that work in concert with each other to make drinks..
- Check [here](#)



- **Robot:** A spinoff of Switzerland robotics company F&P Robotics, the Barney bot uses an articulating arm to move cups and serve coffees, sodas and more. Barney's sister bot is the Barney Bar bartender.
- Check [here](#)



- **Robot:** The granddaddy of coffee robots, Cafe X uses an articulating arm to make and serve a variety of hot and cold coffee and tea drinks.
- Check [here](#)



- **Robot:** In addition to an articulating arm, Crown Digital's kiosks also feature a cool transparent screen for ordering and eventually advertising.
- Check [here](#)



- **Robot:** The Barista Bot foregoes the theatrics of articulating arms in favor of a more enclosed, appliance-like approach. The machine makes a variety of hot and cold coffee and tea drinks.
- Check [here](#)

Existing solution



- **Robot:** The InBot offers two flavors of its coffee bot: The P Series, which is a rectangular kiosk, and the T Series, which is slightly smaller, round and has a video screen. Both models use Eversys coffee machines, sport dual robotic arms and Know's inBot OS.
- Check [here](#)



- **Robot:** A countertop articulating arm that operates coffee machines. Check [here](#)



- **Robot:** Montycafe makes a humanoid looking robot that operates coffee machines (and even serves ice cream!)
- Check [here](#)



- **Robot:** In addition to coffee drinks, Smyze makes a number of different juice-based drinks.
- Check [here](#)



- **Robot:** MyAppCafé's hook is that it prints customizable pictures (like selfies) on your latte's foam.
- Check [here](#)



- **Robot:** Perhaps the coolest thing about Truebird is its use of magnetic pucks that elegantly glide your cup when serving you. of hot and cold coffee and tea drinks.
- Check [here](#)



CHALLENGE:

- The task is to make a replacement for a coffee maker by a robot system
- Affordable solution
- Potential for MVP

SOLUTION VISION

- **4 types of coffee as a basis:**

1) Espresso 2) Black coffee 3) Latte 4) Cappuccino

- **consider 3 types of cups:**

Small; Average; Big

- **All coffee is divided into 2 types of preparation**

1) coffee + water

2) coffee + water + milk

- The main difficulty is milk, since milk is stored in the refrigerator, need to get it, open it, pour it, close it, put it in place, warm it up, add it to a glass of coffee

- Payment and order is made through the tablet in front of the device or through the application on the phone