



STARBOTS COFFEE

The robotic cafeteria by The Construct



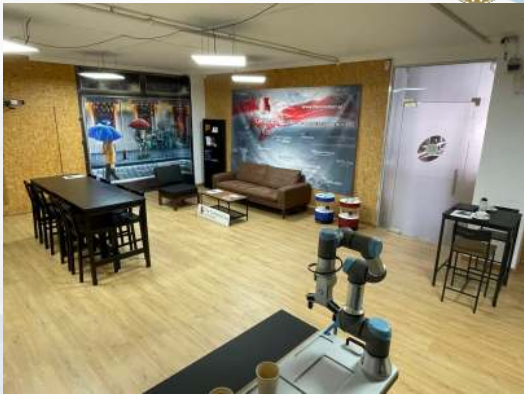
What is Starbots?

What is Starbots?



- * Real cafeteria managed by robots
- * Built by The Construct to teach robot fleet management

theconstruct.ai



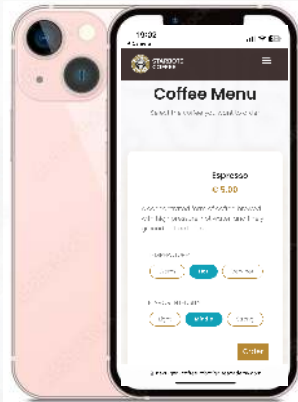
How To: 1st you scan the QR code



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How To: 2nd, you order on the phone

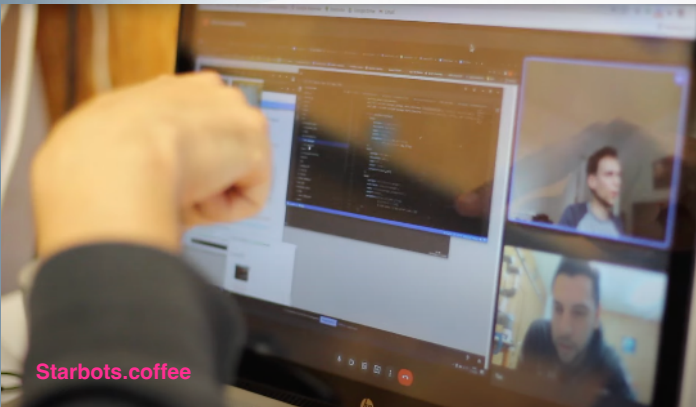


How To: 3rd, robots prepare and deliver it to your table



What is its purpose?

We provide this lab to our remote students



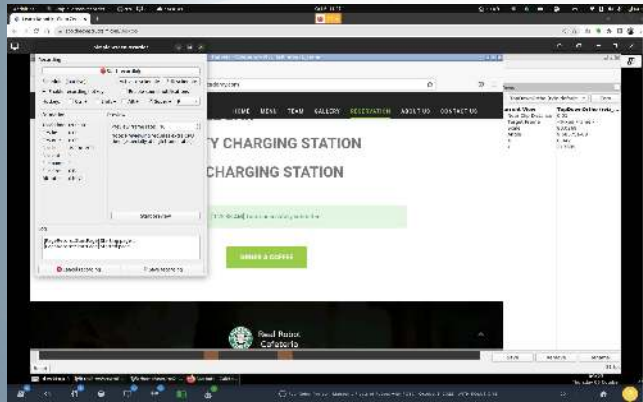
Starbots.coffee

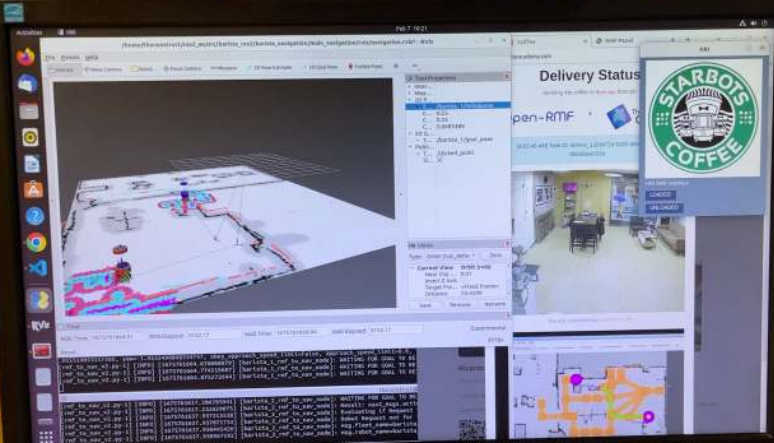


While studying Open-RMF



They test their programs in a real environment





How does it work?

Part I: its robots

Part I: its robots



- Prepare coffee
- Deliver it to tables
- Take out garbage



Part I: its robots

Barista Robot



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Part I: its robots

Coffee Machine



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Part I: its robots

Delivery Robots



Part I: its robots

Delivery Robots



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Part I: its robots

Cleaner Robot



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Part I: its robots

Cleaner Robot

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Part I: its robots

Door



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Part I: its robots

Door



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How does it work?

Part II: its software

Part II: its software

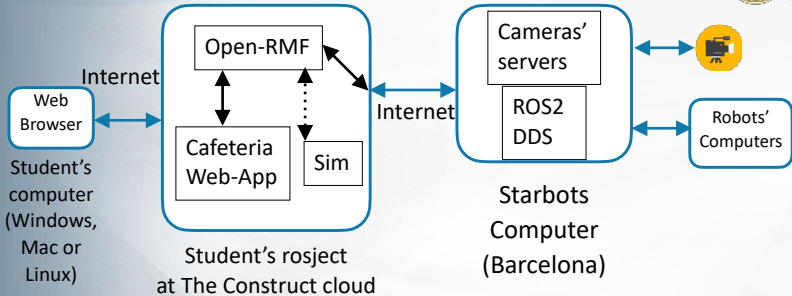


 Open-RMF

 2



Part II: its software



Part II: robots' computers



RO

RO

ROS 2 Nav



Coffee
Computer
(IoT API)



Movelt2

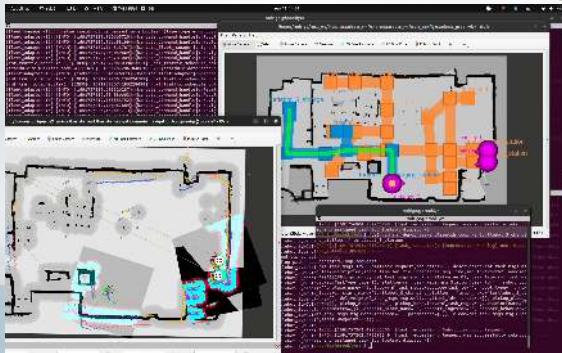


Door
Computer
(Raspberry)



Part II: its software

Navigation lines



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Part II: its software

Task: Go to charge

 open-RMF



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Part II: its software



Dispenser 1: prepare a coffee

Controls:

1. Arm movements
2. Preparation of coffee
coffee machine



Part II: its software

Open-RMF



Dispenser 2: load/unload trash table



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Part II: its software



Ingestor: indicate robot unloaded



How does it work?

Part III: the teaching material

Part 1: the lessons



† The *ESL* data were not available for the 1990 and 1991 studies, and the 1992 data were not available for the 1993 study.



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Part III: the teaching material

Part 2: the project with Starbots



**We opened it to the
public!**

THE ONLINE REMOTE CAFETERIA OF THE CONSTRUCT

Send us a coffee remotely controlling our robots



LIVE on Jan 16th, 2023

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The
Construct

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Built by The Construct using



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COFFEE NOW**



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**You can too provide real
labs to your students or
researchers!**

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Questions?

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