



MASTER IN
COMPUTER
SCIENCE



UNIVERSITÉ DE FRIBOURG
UNIVERSITÄT FREIBURG

STEPHANOTRON

Project Ideas

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General Purpose

Drink serving robot

- Take orders.
- Grab the good drink.
- Give some information about the drink :
 - Read the information on the container.
 - Give nutritional advice.
- Open the drink.
- Give the drink.

Interface

To take orders :

- Microphone (speech recognition),
- Buttons (hardcode drink options), OR
- Camera (read note).

To grab and give drinks :

- Camera (find container),
- Arm (to grab).

To open drinks :

- Arm.

To communicate with client :

- Speaker, OR
- Screen.

To find clients :

- Camera, OR
- Buttons (on table).

Technical Difficulties

- Find the people to take orders
 - Recognize humans
 - Remember who was already served
 - Come back if drink is empty
- Recognize orders (esp. if input is speech or hand-written text)
- Recognize and read the drinks
- **Grabbing and opening mechanism**
- Walk around
 - Not bump on things
 - Remember where people and drinks are

Discussion