

Robots

(Physical robots available in the course)

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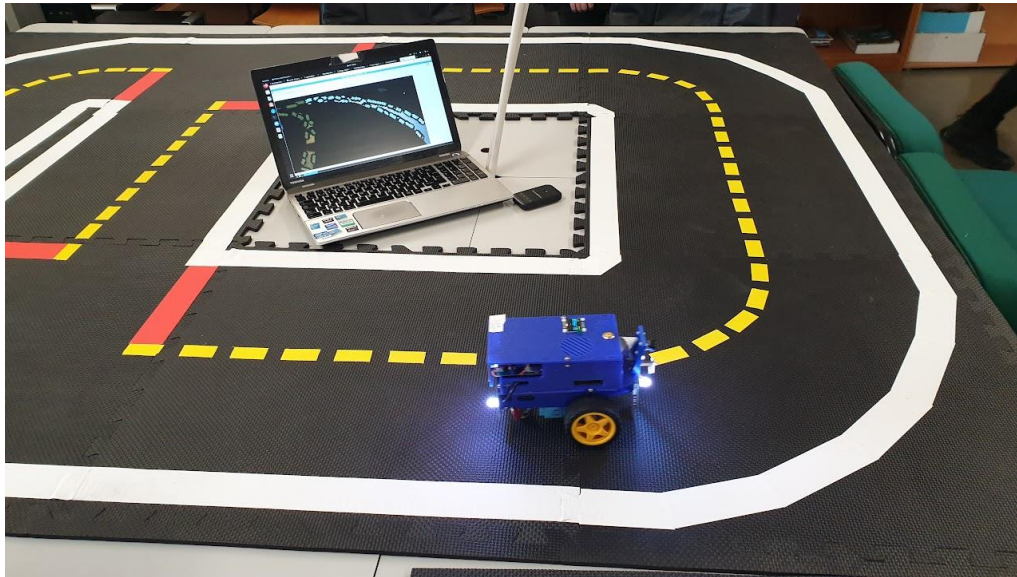
Turtlebot 3

TurtleBot3
Waffle



- Turtlebot 3 – Intel Joule
- <https://sites.google.com/gcloud.fe.up.pt/asousa/turtlebot>

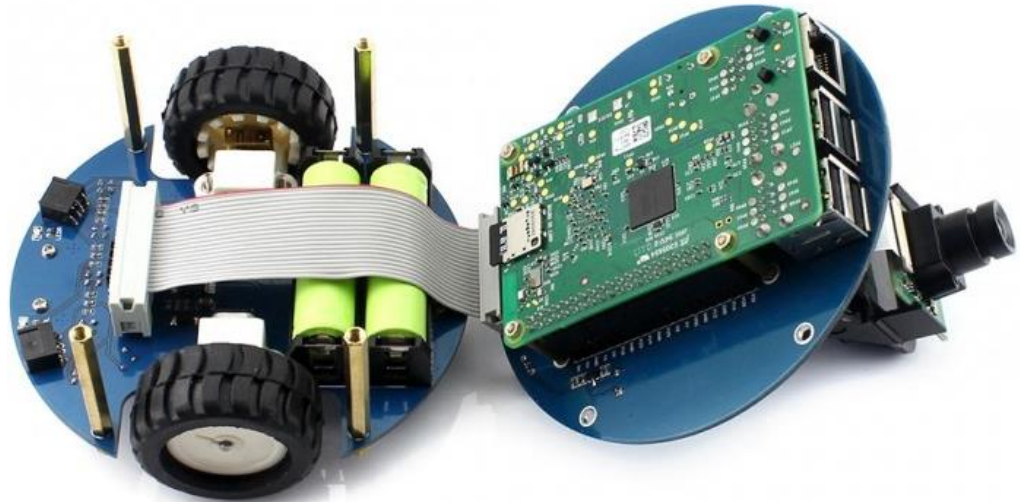
“Duckies” -



- <https://sites.google.com/g.uporto.pt/feupsduckietown>
- <https://get.duckietown.com/collections/the-classroom-kits/products/classroom-kit-5>
- <https://get.duckietown.com/products/duckiebot-db21>

Other Robots 1

- Alhabot 2 RPi



Other Robots 2

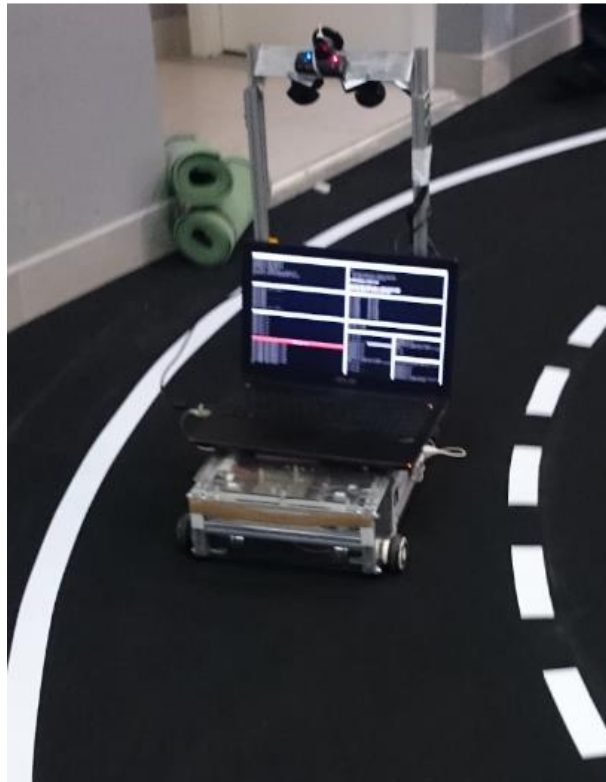
- “3Rpi” = Pololu 3Pi + RPi



Other Robots 3

- Autonomous Driving
 - “Conde” is differential Drive
 - “Alvega” is Ackerman
- Both in ROS 1
 - https://github.com/ee09115/conde_simulator
- The real robot needs a PC on top of it...

PRO Robot "Conde":



PRO Robot "Major Alvega":



Other Robots 4

- “BulbRobot”
 - Modified Alphabot 2 R-Pi platform



Other Robots 5

- SERP2 –
Arduino + R-Pi,
FEUP made,
“well” documented
- Very little ROS
simulation –
unless you
want to do it!

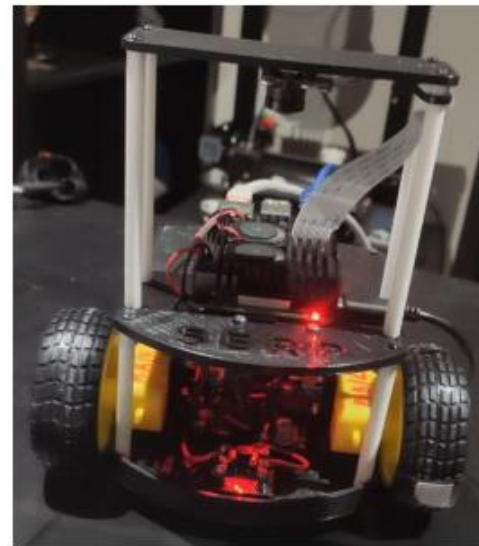


(a) Vista frontal

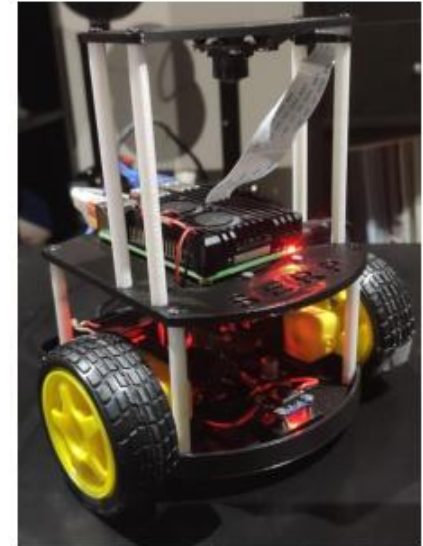


(b) Vista traseira

Figura 15: Montagem do segundo patamar e dos controladores do robô



(a) Vista frontal



(b) Vista lateral

Some Links

- 1 TurtleBot - <https://www.turtlebot.com/>
(waffle version, although not R-Pi version); [FEUP's TurtleBots](#)
- 1 RPi + 3Pi - <https://www.pololu.com/product/975>
with a power bank and a R-Pi with camera on top
- 1 LightBulb Robot –
<https://www.scopus.com/record/display.uri?eid=2-s2.0-85082111392&origin=inward>
- 1 Conde Robot - https://github.com/ee09115/conde_simulator
- 1 Major Robot - https://github.com/ee09115/conde_simulator
- DuckieTown: 3 x DuckieBots –
<https://www.duckietown.org/>
<https://get.duckietown.com/products/duckiebot-db21>
[FEUP's Duckie Town](#)

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