First steps into Duckietown

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Assemblying the Duckiebot

https://duckietown.com/get-started/

First steps: robot assembly instructions

Already have a Duckietown robot (Duckiebot, Duckiedrone, Duckietown, Autolab)?

Follow the links below to get started building!

Build my Duckiebot | Build my Duckietown | Build my Duckiedrone

Software

- Duckietown development environment (Git, Docker and Duckietown Shell)
- Recommended Ubuntu 20.04 or 22.04 VM on PC
- “Duckietown uses DockerHub to distribute the containerized version of its software modules, and most Duckietown procedures entail some docker operations behind the scenes.”
- Dts (Duckietown shell)
- Burn the SD card

Check if the Duckiebot Works – TO DO

Check the outcome

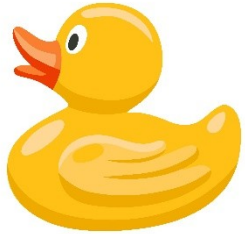
- Look at the Overview of interlocking parts and make sure you have used each type at least once.
- Check all cable connectors and make sure they are plugged in completely. Do not use force on the Duckiebot, it is (almost) never useful, and it might lead to undesirable outcomes.
- Make sure you have flashed your SD card with the latest version of the Duckiebot image (configuration `DB21M` if using a Jetson Nano 2 GB, `DB21J` if using a Jetson Nano 4 GB).

> **Note**
>
> Version 1.2.2 is the minimum requirement for enabling battery code updates. Make sure you have at least this version (>22 March 2021).

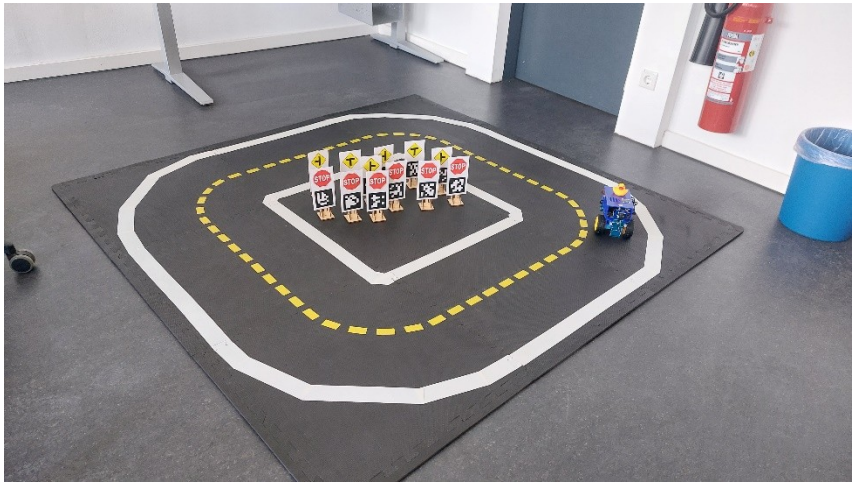
- Make sure the SD card is inserted in Jetson Nano in the dedicated SD card slot under the main board. Do not plug it in the adapter and in a USB port. If you have already inserted a flashed SD card, you are allowed to push the magic button on the battery.
- Which LEDs you should see:
  - Blue LEDs when the robot is off and you plug in the charger (after it's off);
  - White LEDs when the robot is on;
  - Random color LEDs when the robot is powering on.

<u>Future work in coming days:</u>

Do the configuration and downloads again on the laptop and then test Duckiebot



Duckietown assembly



More future work

- Test a basic functional demo (on webpage, first steps in duckietown)
- Extended version.
- Thesis: trajectory planning

algorithm to work with the robot.

Details about it, how, papers to read…