VILNIUS UNIVERSITY
FACULTY OF MATHEMATICS AND INFORMATICS
INSTITUTE OF COMPUTER SCIENCE
INFORMATION TECHNOLOGIES STUDY PROGRAM

Problem-Based Project

Rover user guide

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Contents

1 Turning on the robot **3**

2 Connecting to the robot **5**

3 Using the remote controller **5**

4 Example tasks **6**

1 Turning on the robot

Step 1: To turn on the robot, flip the switch highlighted by a red circle in figure 1.

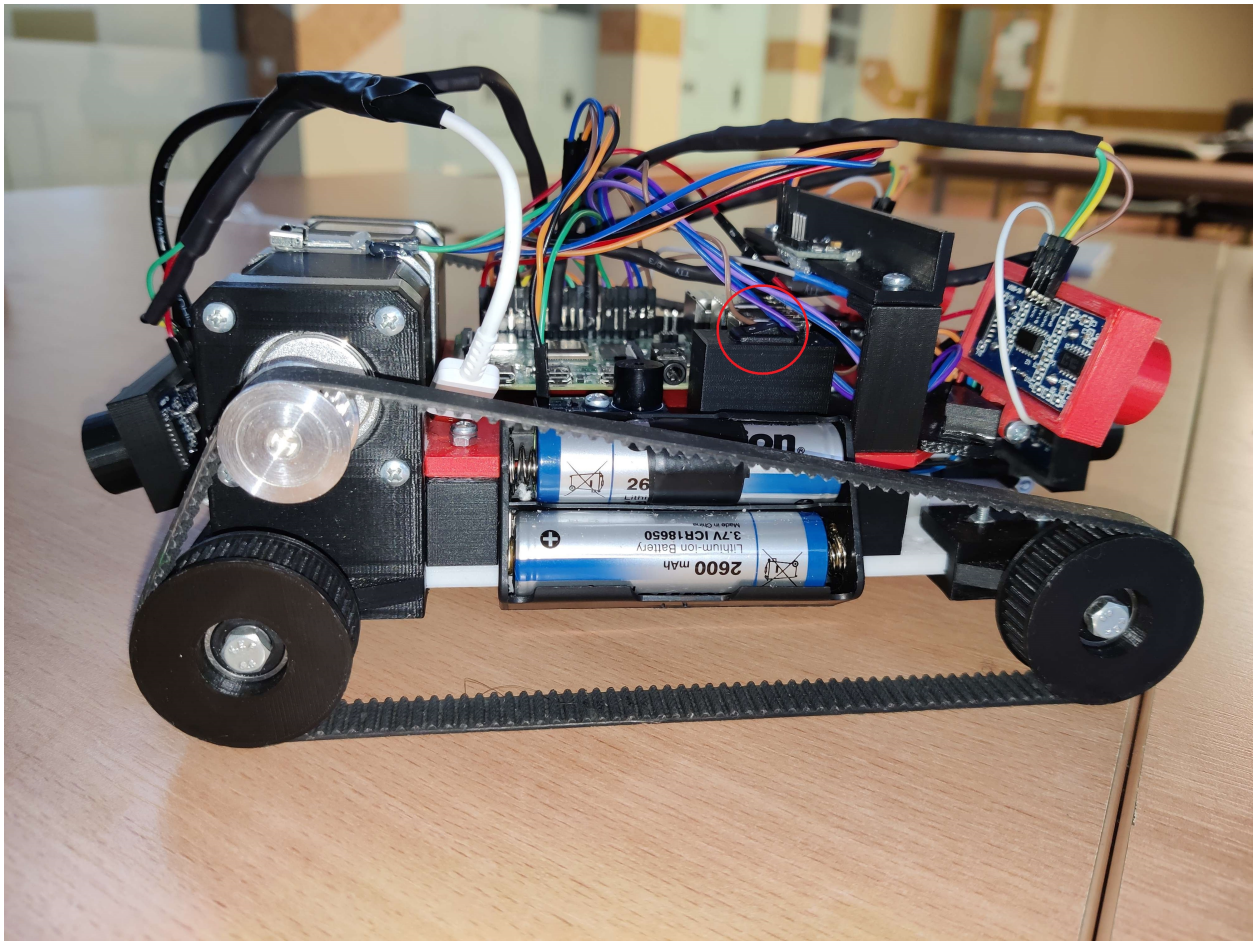

Figure 1. Rover side view

Step 2: Connect the white USB cord to the USB port highlighted by a yellow arrow in figure 2.

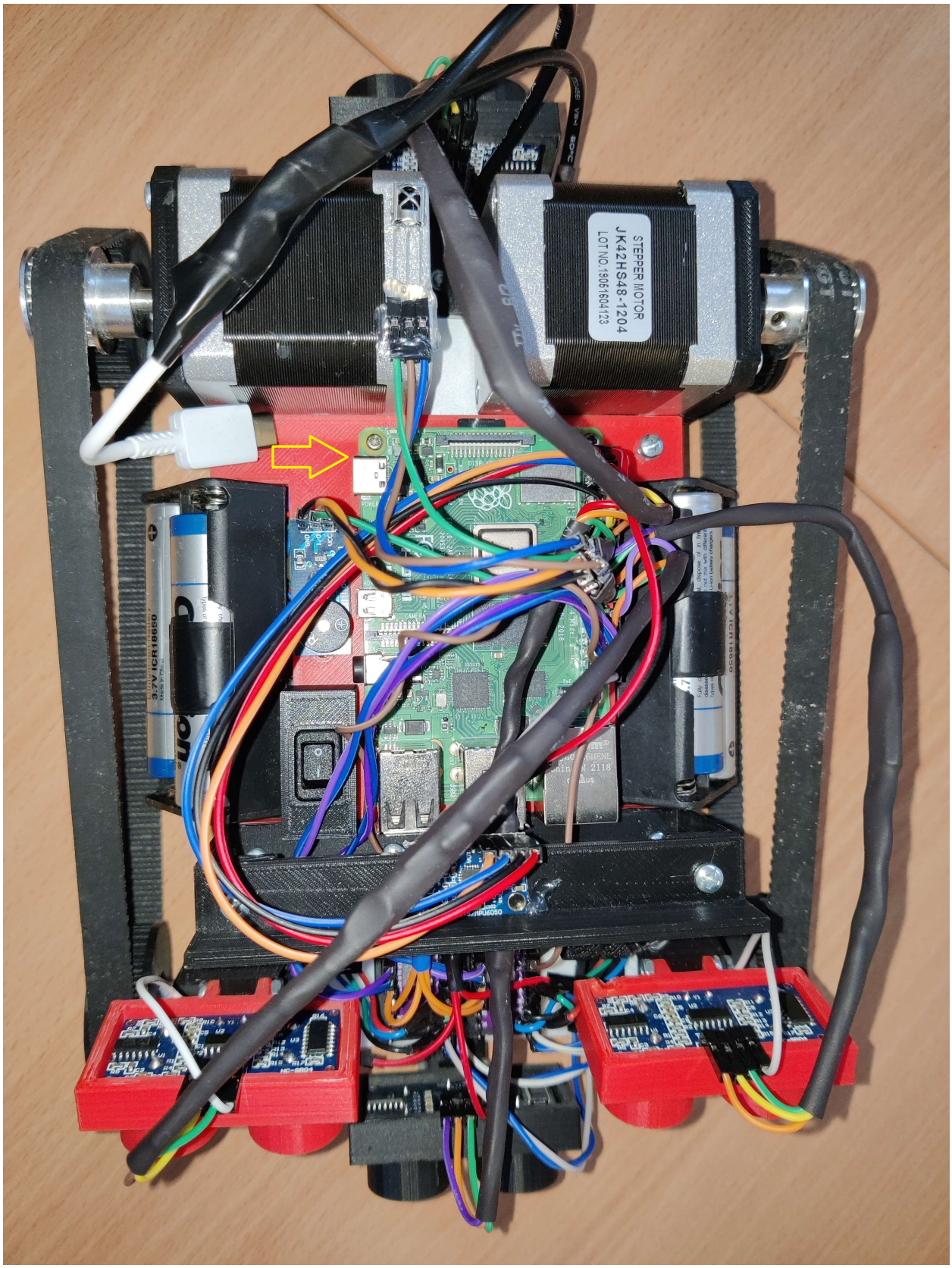

Figure 2. Rover top view

2 Connecting to the robot

Step 1: Connect to a Wi-Fi network called "OnePlus 8T" using the password "m89v4f2p".
Step 2: Open the terminal (Mac OS, Linux) / command prompt (Windows) or a program that allows SSH connections.
Step 3: Connect to the robot using "ssh dev@rover.local" command using the password "rover".
Step 4: Enter the following command in the terminal to start the script: "python3 /Rover/Development/python3/robot.py". **NOTE:** The script can only be executed once!
Step 5: Wait for 3 short beeps that indicate that the robot is ready to be used.

3 Using the remote controller

Figure 3. Rover remote instructions

1 - autonomous mode
2 - manual mode
3 - stop
4 - start
8 - reset task queue

Autonomous mode:
5 - add task 1 to the queue (explore)
6 - add task 2 to the queue (not implemented)
7 - add task 3 to the queue (not implemented)

Manual mode:
$\wedge$ - forward
$\vee$ - backward
$>$ - turn right
$<$ - turn left
II - stop

Before executing a task, the user must enable one of the two modes (autonomous, manual).

4 Example tasks

Turn on exploration mode: To turn on exploration mode, press the following buttons: $1 \rightarrow 5 \rightarrow 4$. To stop exploring press button 3.
Control the robot manually: To control the robot manually, press the following buttons: $2 \rightarrow 4$. Then the robot can be moved using the movement buttons and stopped using the II button.