

Documentation for Robofish Experiments

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September 14, 2022

Full repository containing all required information can be found on GitHub:

 <https://github.com/RoboFishLab/Robofish.io>

Installation

Currently only Linux is supported

- WLAN Router: Network Name: RoboFish; Password: vhr0b0134js
- RoboFish ID 135: Fixed IP: 192.168.0.4
- RoboTracker: Entire folder should be downloaded to Desktop or other reliable location
- .ApplImage should be executed once, then closed. This creates config.ini file! File supplied here should be used as template
- Search for config.ini file (somewhere in a FU Berlin/RoboTracker/ directory). Change Plugin directory at the bottom of the file, to point towards the correct plugin file to be used in the RoboTracker folder
- Install v4l-utils and guvcview:
find instructions here: <https://davejansen.com/logitech-streamcam-on-linux/>
- guvcview can be used to set the camera parameters, which can be found in the provided template file. Load oldenburg_guvcview_settings.gpfl for experiments.
- Start RoboTracker by clicking on the .ApplImage or running START_ROBOTRACKER.sh
- Supply robot with fully charged battery and turn on before usage
- If Robot was turned on before RoboTracker the robot should be found automatically. Otherwise go to **Search Network for Robot** in the top right in RoboTracker

Setup

1. Make sure battery packs for the robot are charged, prior to all experiments
2. Open [Baser Video Recording Software](#)
3. Start guvcview by pressing the Windows key and typing guvcview to find it or by opening a terminal and typing guvcview and pressing Enter. Load oldenburg_guvcview_settings.gpfl (**Settings > Load Profile**)
4. Start RoboTracker by clicking on the .ApplImage file or by clicking on START_ROBOTRACKER.sh

5. If Robot was turned on before RoboTracker the robot should be found automatically. Otherwise go to **Search Network for Robot** in the top right in RoboTracker
6. Start tracking by clicking on **Start Tracking** and make sure the detection indicator (thin line) is between the two LED spots and shows the correct RobotID
7. If the robot is turned on and connected a window should appear with RobotID as title. There, you can select whether you want to manually control the robot using the A,W,S and D keys on a keyboard (**Manual AWS D control**) or have it follow a predefined trajectory (**Trajectory**). Once selected click on **Activate** to start the system.
NOTE: Do not touch the controller and speed settings in RoboTracker, since there is currently a bug when running in trajectory mode and using a non-default speed setting.