Robomaster TT (Tello) Educational Drones



Software download: https://www.dji.com/de/robomaster-tt/downloads

DFRobot General Tutorial DFRobot Mind+

YouTube: Mind+ Tutorial How to connect and run code on Robomaster Tello Talent on Mind plus software

Firewall Exceptions

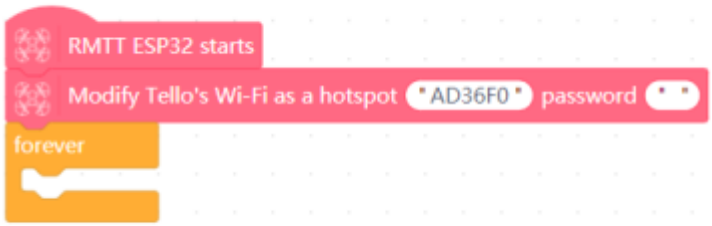
- open ports 8890/udp and 11111/udp

Update Drone Firmware

1. **Can only be done through the phone app!**
2. Download the newest Firmware in the App while still connected to the internet - before connecting to the drones wifi
3. Connect to the drones Wifi (TELLO-xxxx) without the extension module connected!
4. Under the app settings update firmware

Modify Extension Module Wifi AP

1. Connect only the extension module with a usb cable to your PC
2. Open the Mind+ software
3. Under Extensions (Bottom left) select “RoboMasterTT (ESP32)”
4. Then change the Wifi AP to something like below and press upload



HINTS

- When the drone is set to STA / connect to router mode with the switch on the extension module, the propellers will start spinning once connected. If you want to stop the propellers simply lift the drone.

PYTHON

- DJITelloPy PyPi
- DJITelloPy Docs
- YouTube: Conquering Tello Drone Programming with Python
- YouTube: Bunch of usefull Tello Python Programming

```
from djitellopy import TelloSwarm

# Create a swarm with two Tello drones
swarm = TelloSwarm.fromIps(["192.168.2.122", "192.168.2.123"])

# Connect to the drones
print("Connecting to drones...")
swarm.connect()

#print("Battery levels:")
#for i, battery in enumerate(swarm.get_battery(), start=1):
# print(f"Tello{i}: {battery}%")

# Change the LED colour of both drones
swarm.parallel(lambda i, tello: tello.send_expansion_command("led 255 0 0"))

# Execute commands as a swarm
swarm.takeoff()
swarm.parallel(lambda i, tello: tello.move_forward(50))

# Rotate only the second drone
swarm.tellos[1].rotate_clockwise(90)

# Change the LED colour of the second drone
swarm.tellos[1].send_expansion_command("led 0 255 0")
```

```
# Land all drones simultaneously
swarm.land()

print("Mission complete!")
```

UWB

GitHub: uwb-tello-swarm

UWB Modules Tello

Gesture Control

GitHub: tello-gesture-control

GitHub: Hand-Tracking-Module

Hand Tracking from scratch Python Tutorial

From:
https://wiki.eolab.de/ - **HSRW EOLab Wiki**

Permanent link:
https://wiki.eolab.de/doku.php?id=projects:robomastertt:start&rev=1734006605

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