UNITREE GO1 Robot Dog User Manual

1\. Safety and Handling

General Safety:

Always supervise the UNITREE GO1 during operation.

Ensure the area is clear of obstacles and people before starting.

Do not operate the robot in wet or hazardous environments.

Handling:

Use both hands when lifting or moving the robot to avoid dropping.

Avoid touching the robot's sensors and cameras directly to prevent damage.

Battery Safety:

Only use the provided charger and batteries.

Do not expose the battery to extreme temperatures or direct sunlight.

Charge the battery in a well-ventilated area.

2\. Startup and Shutdown

Startup

1. Power On:

Locate the power button on the robot's body.

Press and hold the power button for 3 seconds until you see the LED indicator light up.

2. System Check:

Wait for the onboard diagnostics to complete (approximately 10 seconds).

Ensure all systems are functioning properly (check LED indicators).

Shutdown

1. Power Off:

Press and hold the power button for 3 seconds until the LED indicator turns off.

Wait for the system to power down completely before disconnecting the battery.

3\. Controller or Operation Instructions

Remote Control

Using the Controller:

Ensure the controller is charged and paired with the UNITREE GO1.

Use the joystick to navigate the robot:

Left Joystick: Forward/Backward movement.

Right Joystick: Turning left/right.

Press the "Start" button to initiate movement.

Autonomous Mode

1. Select Autonomous Mode:

On the controller, press the "Mode" button to switch to autonomous navigation.

2. Set Destination:

Use the app interface to set waypoints for the robot to navigate.

3. Start Navigation:

Press the "Go" button to begin autonomous navigation.

4\. Advanced Programming / Connectivity

Programming

Using Python SDK:

Install the UNITREE Python SDK from the official website.

Connect the robot to your computer via USB or Wi-Fi.

Basic Example: `python from unitree import UnitreeGO1 robot = UnitreeGO1() robot.moveforward(1.0) # Move forward for 1 meter `

Connectivity

Wi-Fi Setup:

Access the robot's settings via the mobile app.

Connect to a Wi-Fi network by entering the credentials.

Remote Access:

Use the mobile app to control the robot remotely.

5\. AI Features and Sensing

Onboard Sensors:

The UNITREE GO1 is equipped with:

Lidar: For obstacle detection and mapping.

Stereo Cameras: For depth perception and navigation.

AI Capabilities:

Supports machine learning algorithms for advanced behavior modeling.

Can be programmed to recognize objects and respond to commands.

6\. Maintenance and Troubleshooting

Maintenance

Regular Checks:

Inspect the robot for any physical damage or loose components.

Clean the sensors and cameras with a soft, dry cloth.

Battery Care:

Charge the battery after each use to maintain optimal performance.

Store the battery in a cool, dry place when not in use.

Troubleshooting

Robot Not Responding:

Ensure the battery is charged.

Restart the robot and controller.

Connectivity Issues:

Check Wi-Fi settings and ensure the robot is within range.

Restart the robot and attempt to reconnect.

7\. Additional Notes

User Community:

Join the UNITREE user community online for tips, support, and sharing experiences.

Updates:

Regularly check for firmware updates via the mobile app to ensure optimal performance and new features.

Warranty:

The UNITREE GO1 comes with a one-year warranty covering manufacturing defects. Please refer to the warranty policy for more details.

For further assistance, please refer to the official UNITREE documentation or contact customer support.

Resources:

- Manual Pdf:

/manuals/unitree_go1_manual.pdf
- Tutorial Video:

https://www.youtube.com/watch?v=FSwzCiv4N0U
- Qr Link:

https://www.unitree.com/go1/