

# **Tello SDK**

**1.0.0.0**

## 1. Overview

The Tello SDK connects to the aircraft through a Wi-Fi UDP port, allowing users to control the drone with text commands.

Download Tello3.py from <https://dl-cdn.rzyzerobotics.com/downloads/tello/20180222/Tello3.py>

## 2. Architecture

### Wi-Fi

Tello <<- IP: 192.168.10.1    UDP PORT: 8889 ->> PC or Mobile Device

## 3. Tello Command String Formatting and Results

### Commands Type

Tello commands have three basic structures, some of which are not applicable to all command types. For further information, see the individual commands.

- **Control Commands (xxx)** - If the command is successful, the drone command interpreter will return "OK." Otherwise, an error or informative result code will be returned.
- **Read Commands (xxx?)** - Reads the current value of the sub-parameter(s).
- **Set Command (xxx a)** - Will attempt to set a new sub-parameter value(s). If the command is successful, the drone command interpreter will return "OK." Otherwise, an error or informative result code will be returned.

## 4. Tello Commands

\*Distances are measured in cm, angles are measured in degrees, and speed is measured in cm/s.

Command	Description	Possible Response
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command	Enter command mode	OK FALSE
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Command	Description	Possible Response
takeoff	Auto takeoff	OK FALSE

Command	Description	Possible Response
land	Auto landing	OK FALSE

Command	Description	Possible Response
up xx	Fly upward xx xx = (20-500 cm)	OK FALSE

Command	Description	Possible Response
down xx	Fly downward xx xx = (20-500 cm)	OK FALSE

Command	Description	Possible Response
left xx	Fly left xx xx = (20-500 cm)	OK FALSE

Command	Description	Possible Response
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right xx	Tello fly right with distance xx xx = (20-500 cm)	OK FALSE
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Command	Description	Possible Response
forward xx	Fly forward xx xx = (20-500 cm)	OK FALSE

Command	Description	Possible Response
back xx	Fly backward xx xx = (20-500 cm)	OK FALSE

Command	Description	Possible Response
cw xx	Rotate clockwise $x^\circ$ $x = (1-3600^\circ)$	OK FALSE

Command	Description	Possible Response
ccw xx	Rotate counter-clockwise $xx^\circ$ $xx = (1-3600^\circ)$	OK FALSE

Command	Description	Possible Response
flip x	Flip x l = (left) r = (right) f = (forward)	OK FALSE

	b = (back) bl = (back/left) rb = (back/right) fl = (front/left) fr = (front/right)	
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### Set Command

Command	Description	Possible Response
speed xx	Set current speed as xx  xx = (1-100 cm/s)	OK  FALSE

### Read Commands

Command	Description	Possible Response
Speed?	Get current speed	xx

Command	Description	Possible Response
Battery?	Get current battery percentage	xx  xx = (0-100%)

Command	Description	Possible Response
Time?	Get current flight time	xx