

DSRobot Quickstart Guide

DO NOT LEAVE THE BATTERY UNATTENDED WHEN CHARGING, IT IS A FIRE HAZARD.

DO NOT LEAVE THE ROBOT UNATTENDED WHEN POWERED ON.

Connecting to the robot

To power on the robot, connect the male connector of the battery to the power connector of the upper board. Then use the blue switch to turn the robot on and off.

The robot will create a WiFi access point named `wifi-robots.com_XXXXXX`. After connecting to the access point the robot will be at address `192.168.1.1`.

Available commands

The robot accepts 5-byte commands through plain TCP on port 2001. Just send a TCP segment containing the 5 bytes as data to address `192.168.1.1` on port 2001. Below is a table of the available commands.

Command	Hex code	Additional info
Stop	0xFF000000FF	
Move forward	0xFF000100FF	
Move backward	0xFF000200FF	
Rotate left (CCW)	0xFF000300FF	
Rotate right (CW)	0xFF000400FF	
Set left motor speed	0xFF0201XXFF	XX is a hex between 0x00-0x64 (0-100 dec)
Set right motor speed	0xFF0202XXFF	XX is a hex between 0x00-0x64 (0-100 dec)
Rotate camera left-right	0xFF0107XXFF	XX is a hex between 0x00-0xB4 (0-180 dec)
Rotate camera up-down	0xFF0108XXFF	XX is a hex between 0x00-0xB4 (0-180 dec)
Save current camera servo angles	0xFF320000FF	
Reset camera servo angle to the saved ones	0xFF330000FF	

Important notes

- Do not issue commands to the robot while it is on a table, always put it on the floor first.
- Do not consecutively send commands that will change the direction of rotation of some of the motors without sending a stop command between them, otherwise the motors may be damaged. These commands are the move forward/backward and rotate left/right commands.
- Always send a stop command before disconnecting from the robot.

Camera Feed

To view the camera feed, visit <http://192.168.1.1:8080/?action=stream> with a browser after connecting to the robot WiFi network.