Spiri Connect Guide
Pleiades Robotics Inc.

Step 1) Configuring the network specifications:

a) When Spiri starts, it will automatically create it's own access point for you to connect to. You will see a discoverable network called “SPIRINET”. If you wish to communicate with Spiri through the access point, simply connect to this network – the password is 00000000 (8x zeros).

b) If you wish to maintain internet access while working with Spiri (a useful thing the Internet), you may configure instead, that Spiri connect through your existing network. We have created a few bash scripts to help do so.

b1) Run “kill_access_point.sh”

b2)Open “network_switch.sh” and edit the SSID and the password to those of your working network – save close and run the script.

b3) Spiri will now be connected and assigned an IP through your network.

Cause for concern with method b)

You may find you have latency issues communicating with Spiri using the second method depending on your network and router setup. For some it works perfectly fine (1-5ms ping) but for others we have experienced upwards of 300ms ping. Experiment with the connection to make sure the latency is acceptable for your working desires.

Step 2) Connecting to Spiri using the Client Software

a)You'll need to fetch the relevant files from the github repository for utilizing the client software. The client files can be found at:
- https://github.com/Pleiades-Spiri/Spiri_Public
-Checkout with the master branch
b) For basic communication with Spiri, locate the python_client folder on your machine and use the contents to connect. Run in desired python shell. The python_client folder is a template for how all python code is written for Spiri – *all* of the components in the folder are required to connect.

b1) example_code.py: Here is code for basic communication with Spiri

-make sure you assign the correct IP for Spiri (if connected through Spirinet it should be 10.10.0.1, if connected through the network, find the IP assigned). This code will set a good example on how to retrieve motor and sensor data from Spiri, as well as how to set attitude and altitude. (for a more basic version see example_single_command.py)

b2) turn_on.py: Another useful basic code, example of how turn on Spiri and set pitch, roll, yaw and RPM of motor for Spiri.

Continued Development

We will continue to update Spiri with basic and more advanced software tools for your usage – scripts for reading and logging data, and more advanced controls are in currently in development as well as many others. Play with the code and get a feel for talking to your Spiri – implement your own ideas and examples. We look forward to collaborating and continued development!

For questions and troubleshooting please contact
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