

# Use SFTP to Transfer Code To Raspberry Pi

*A. Giavaras*

## Contents

|   |   |   |
|---|---|---|
| 1 | Use SFTP to Transfer Code to Raspberry Pi . . . . . | 2 |
|---|---|---|

## 1 Use SFTP to Transfer Code to Raspberry Pi

Secure File Transfer Protocol (SFTP), lets you transfer files from a computer to a Pi. SFTP uses SSH to copy files to and from the Raspberry Pi over the network. Let's see how this works with a simple example. Create the following script in a directory on your PC that you will be storing the code of your robot.

```
## sftp_test.py
print("SFTP_transfer_example")
```

We can use the SFTP tool FileZilla. You can download FileZilla from here <https://filezilla-project.org>

Plug in and power up your Raspberry Pi. Whether you are connected or not is shown in the bottom of the right-hand panel. In the **Host** box, type the local hostname you gave your robot Pi when you did the headless setup, prefixed with **sftp://**. For example, **sftp://raspberrypi.local**. In the **Username**, type **pi** and enter the password you set up before. Click the **Quickconnect** button to connect to the Raspberry Pi. Figure 1 shows a connected session with our **sftp\_test.py** file transferred across.

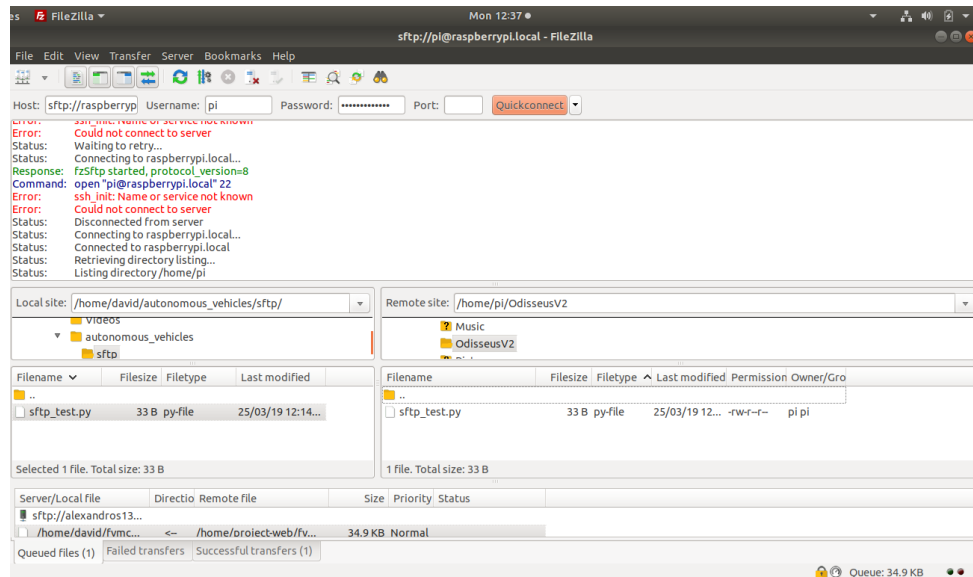
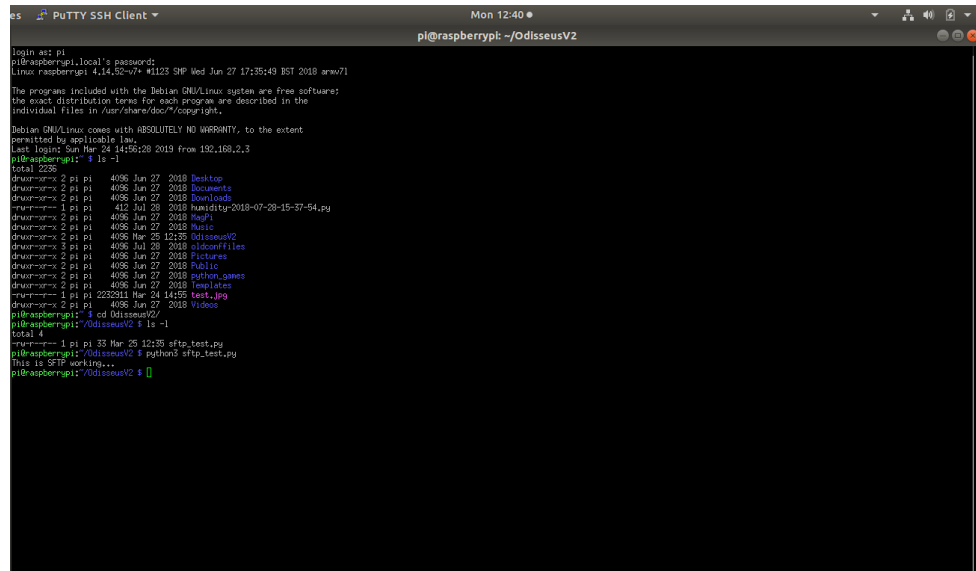


Fig. 1: GUI view of FileZilla.

When connected, you will see files on the Raspberry Pi in the right-hand **Remote site** panel, like the preceding image. Use the left-hand **Local site** panel to go to your code on your computer. You can click **sftp\_test.py** and drag it to the lower right-hand panel to put it on the Raspberry Pi.

When you drag the file over, you should see it in the **Queued files** section (left bottom corner). Since this file is small, it will only be in this queued state for an instant. You can also use the same system too for larger files and folders. You'll soon see the file over in the remote site (the Raspberry Pi), shown on the right of the preceding screenshot. To run this code, use PuTTY to log in to the Pi. This is shown in Figure 2:



```
es PuTTY SSH Client Mon 12:40
pi@raspberrypi: ~/OdiseusV2

login as: pi
pi@raspberrypi.local's password:
Linux raspberrypi 4.14.52-v7+ #1123 SMP Wed Jun 27 17:35:49 BST 2018 armv7l

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sun Mar 24 14:55:28 2019 from 192.168.2.3
pi@raspberrypi:~$ ls -l
total 228
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Desktop
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Documents
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Downloads
-rw-r--r-- 1 pi pi 412 Jul 28 2018 humidity2018-07-28-15-57-54.py
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Music
drwxr-xr-x 2 pi pi 4096 Mar 25 12:35 OdiseusV2
drwxr-xr-x 3 pi pi 4096 Jul 28 2018 odiseusfiles
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Pictures
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Public
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 python_games
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Templates
-rw-r--r-- 1 pi pi 2832411 Mar 24 14:58 test.jpg
drwxr-xr-x 2 pi pi 4096 Jun 27 2018 Videos
pi@raspberrypi:~$ cd OdiseusV2/
pi@raspberrypi:~/OdiseusV2$ ls -l
total 4
-rw-r--r-- 1 pi pi 33 Mar 25 12:35 sftp_test.py
pi@raspberrypi:~/OdiseusV2$ python3 sftp_test.py
This is SFTP working...
pi@raspberrypi:~/OdiseusV2$
```

Fig. 2: RaspberryPi PuTTY session.