

# VOXL Documentation

*Cave Drone Project*

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### **Monitoring VOXL Services**

```
adb shell voxl-inspect-services
```

### **Monitoring QVIO (visual navigation) status and quality**

```
adb shell voxl-inspect-qvio
```

### **Change UDP port that VOXL sends MAVLink traffic to**

```
adb shell vi /etc/modalai/voxl-vision-px4.conf
```

- 1.) Near the bottom of the file, there is a parameter listing 14550 as the default MAVLink port.
- 2.) Type `i` to enter insert mode.
- 3.) Use the arrows to navigate to the appropriate entry.
- 4.) Edit the port number to whatever you want (NOT above 14550 though).
- 5.) Type `:wq` to save the progress and close the file.

### **Configure and Connect in Station Mode**

```
adb shell voxl-wifi station Linksys12421 ettqj3g1ts
```

`adb reboot && adb wait-for-device` (NOTE: This line appears to be optional and hasn't worked for me in the past.)

Once the device has rebooted, you can use the command `ifconfig` to get the IP address of your device on the network like:

```
adb shell ifconfig
```

## **Retrieve PX4 Parameters From Drone**

- 1.) Connect to wifi/router
- 2.) Go to Q ground control and connect the drone.
- 3.) Go to vehicle setup
- 4.) Go to parameters
- 5.) Click tools
- 6.) Save to file
- 7.) Save on desktop

To load files repeat steps 1-6, but click 'load from file' instead of 'save to file'.

## **Updating VOXL SDK**

NOTE: Do NOT open a bash shell in your VOXL. The follow commands are all run on the host computer, not on VOXL.

- 1.) Unzip the download, in this example we'll assume the download name was vox12\_SDK\_M.m.b.tar.gz where M.m.b is the version of the SDK.

```
me@mylaptop:~/$ tar -xzf vox12_SDK_M.m.b.tar.gz
```

- 2.) Get ready to run the script by going into the directory you just unzipped

```
me@mylaptop:~/$ cd vox12_SDK_M.m.b
```

- 3.) Run the following:

```
me@mylaptop:~/$ ./install.sh
```

- 4.) Must run after completed

```
vox1-configure-mpa
```

- 5.) Type in

```
vox1-configure-mpa -factory-rest
```

## **Check Status of MAVLink**

```
Voxl-mavlink-server
```