**NAOQI API**

The built-in **Autonomous Life (AL)** functions allow you to interact with Pepper. These functions are great if your project isn’t too complex and doesn’t require ROS. You can find a list of the AL functions here: <http://doc.aldebaran.com/2-5/naoqi/index.html>

AL functions can be called from command line using **qicli call.** You can append **qicli info** instead to view the required parameters. SSH into the Pepper robot while connected to NETGEAR to use these commands. qicli commands: <http://doc.aldebaran.com/2-5/dev/libqi/guide/qicli.html#guide-qicli>

You can integrate AL functions into scripts for your projects. However, this requires an ubuntu Linux OS to install the **qi library**. Running your qi scripts on a Virtual Machine will suffice if you do not have Linux directly installed. Examples of AL functions integrated into code can be found within this repository.

**Qi installation (Depends on your computer’s architecture.)**

**Arm64 / aarch64 architecture (Mac M1 Laptops):**

To install the qi package, download the wheel file into your Ubuntu VM environment. In terminal navigate to the directory that contains the wheel file and run this command:

pip install qi-3.1.5-cp310-cp310-linux\_aarch64.whl

The reason we must install qi this way is because the current pip installation for Mac M1 (arm64 / aarch64) through PyPl is unavailable.

**x86-64 / amd64 Architecture:**

pip install qi ( requires Ubuntu Linux OS/VM )

**Alternatives:**

If the qi installation does not work on your laptop, you can also try installing the **ipynao package** through conda forge. This will require installing anaconda onto your machine and adding conda forge as a channel. The ipynao package has methods similar to qi, but is not from official SoftBank robotics developers. As a last resort, you can use **bash scripts** to call AL functions through qicli commands.

**SSH**

You can browse Pepper’s files while connected to one through ssh (and connected to NETGEAR) using ls, cd, etc. The data that Pepper records using AL functions will be stored in the robots directory (home/nao). Use scp to send and extract data from Pepper. Obtain the robot ip by pressing Pepper’s button once fast.

ssh nao@robot\_ip

password: nao