Install Pyrpl

Install Conda

I followed the instructions on https://docs.conda.io/projects/miniconda/en/latest/ in the “Quick command line install” section. Those are:

```
mkdir -p ~/miniconda3
wget https://repo.anaconda.com/miniconda/Miniconda3-latest-Linux-x86_64.sh -O ~/
bash ~/miniconda3/miniconda.sh -b -u -p ~/miniconda3
rm -rf ~/miniconda3/miniconda.sh
```

After installing, initialize your newly-installed Miniconda. The following commands initialize for bash shell:

```
~/miniconda3/bin/conda init bash
```

Create redpitaya environment in Conda

To create the `redpitaya` environment run the following line:

```
conda create --name redpitaya -c conda-forge python=3.7 pip matplotlib pyqtgraph
```

Note: The version needs to be python 3.7, pyrpl will not work with the latest version of python without some serious debugging.

Enter the virtual environment invoking:

```
conda activate redpitaya
```

Install remaining packages

Now, other python packages need to be installed:

```
pip install Quamash nose>=1.0 QtPy[minimal]
```

Note 1: Quamash does not work if installed during the creation of the environment.

Note 2: QtPy[minimal] will generate an error when calling `from pyrpl import Pyrpl`, because it requires a display.

Solve the display issue of QtPy

1. **stall Xvfb:**
   Use the package manager

`yum` to install Xvfb:

```
sudo yum install xorg-x11-server-Xvfb
```

2. **Start Xvfb:**
   Start Xvfb with a specific display number. For example:

```
Xvfb :1 -screen 0 1024x768x16 &
```

3. **Set Display Environment Variable:**
   Set the
   `DISPLAY` environment variable to point to the virtual X server:

```
export DISPLAY=:1
```

Installing Pyrpl

Locate in the folder containing the conda environmnet's packages:

```
cd /root/miniconda3/envs/redpitaya/lib/python3.7/site-packages/
```

Clone pyrpl repo

```
git clone https://github.com/lneuhaus/pyrpl.git
```

Copy the right folder to `site-packages/`:

```
cp -r pyrpl/pyrpl .
```

Test if everything works

To test just run:

```
python
```

in order to open the python shell, then

```
>> from pyrpl import Pyrpl
```