

Readinet OS

Installing

1. Download the latest .img file from the `mbari-readinet-images` S3 bucket
2. Install the image to an SD Card
 - For a graphical experience, use [Balena Etcher](#)
 - For a text-based experience, use the `dd` command
3. Insert the SD Card into the RockPi and power the device on
 - The device can take up to 3 minutes to complete its initialization routine

Access

1. After initialization completes, there will be a wifi network that appears starting with `readinet-mgmt`. (Each device will have a different suffix for this wifi address)
2. Connect to the `readinet-mgmt` network with a default password of `readinet`
3. You can access the web interface of the device at <http://10.42.0.1>

Configuring the sampler

1. SSH into the device using `ssh root@10.42.0.1`. The default password is `readinet`
2. The main configuration for the web interface is found in `/opt/web/.env`. You can edit the file by issuing `vim /opt/web/.env` or `nano /opt/web/.env`
3. After making changes, you must reboot the interface by issuing `systemctl restart readinet-web`

The configuration options are as follows:

- `SAMPLER_TTY`: The device location of the sampler on the linux box. Should start with `/dev`
- `SAMPLER_TIMEOUT_SECONDS`: The number of seconds before a sampler operation would be cancelled. Note: this value can be overridden in code for some sampler operations
- `THIS_DEVICE_ID`: The unique identifier for the device. This should match `/etc/machine-id`. Changing this value is not recommended.
- `MQTT_BROKER_URL`: The location of the MQTT Broker
- `ROLE`: The role of the system. Must be either `device` or `server`. There should only be one `server` in the deployment.
- `SECRET_KEY`: This is a web-server specific item to deal with cross site forgery. Do not change this value
- `FLASK_ENV`: This is signifier for what environment the application is running in. It should be `prod` unless otherwise specified.
- `SQLALCHEMY_DATABASE_URI`: A sqlite URI that points to the database in use
- `REMEMBER_COOKIE_HTTPONLY`: A web-server specific item
- `SESSION_COOKIE_SAMESITE`: A web-server specific item