

# Guard Mutt WS Marine Security app

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## **Free Version**

**Free Version released 23<sup>rd</sup> January 2016**

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# Introduction

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I wrote this app out of a need I had to remotely monitor the status of my boat. At the time of writing could find nothing that gave me the following features in a single app.

Turn an old Android phone into a security monitoring device.

- Remotely monitor the status of the mains electricity supply (to fully drain the fresh water system is a real pain so I leave some low powered tubular heaters in strategic places). This app alerts me if the mains electricity fails, a frequent event in a boatyard, and allows me to query the status of the mains electricity.
- Remotely monitor the position of the boat.
- Remotely take a picture from your boat (if your Android device has a camera) using either the front or rear facing camera (if your device has both).
- Internet access from the phone you leave on the boat is required, and you need to register with the Guard Mutt Website

## What this application is not

This app is a security app, it is not a snooping app. I have designed it to be as difficult as possible to use the app for snooping (e.g. hiding a phone in somebody's bedroom), particularly regarding the feature that allows a picture to be remotely taken.

If you want to use the remote photo feature you must:

- Set the app up correctly on the target device (that has to be done for any feature to work)
- The app must be left running in the foreground
- A charger must be connected to the target device (leaving the app running in the foreground with the app running would flatten the device's battery in a short while anyway).

There is a deliberate latency between sending a request for a photo and the picture actually being taken, so you can never capture an exact moment.

# Setting up the app

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**This app needs Internet access. Please note that if you are not in your home country the cost of Internet access can be considerable.** You must enable Internet access on your security phone. The amount of data this app transmits is small with the exception of high resolution pictures (you can set the resolution in the preferences view). High resolution pictures will burn your data bundle.

I'm afraid (on the advice of my legal term) that you have to accept the T&Cs of the app every time you open it.

One user can register one android device only. If you are in the fortunate position that you have many boats to keep track of; you will have to create a new user (or alias) for each one.

To set up:

1. **Before this app will work you must register with the [Guard Mutt Website](#).** This is the website that you will use to monitor your boat. Start by [creating an account](#). You must create a user (alias) name that is unique to the Guard Mutt Website. Also please note that the website is hosted on a free hosting site ([000webhost.com](#)) and is not running over a secure connection. Your password is stored encrypted (but not very strongly) in my database, but the connection to the server is not secure; your alias and password could be intercepted by a 3<sup>rd</sup> party as it is sent to the server. Therefore

## **do not use an alias and password you use for anything else**

This is always good practise with any website. That way all you can possibly give away is whether the mains of your boat is connected, its location and possible some photos the app has taken.

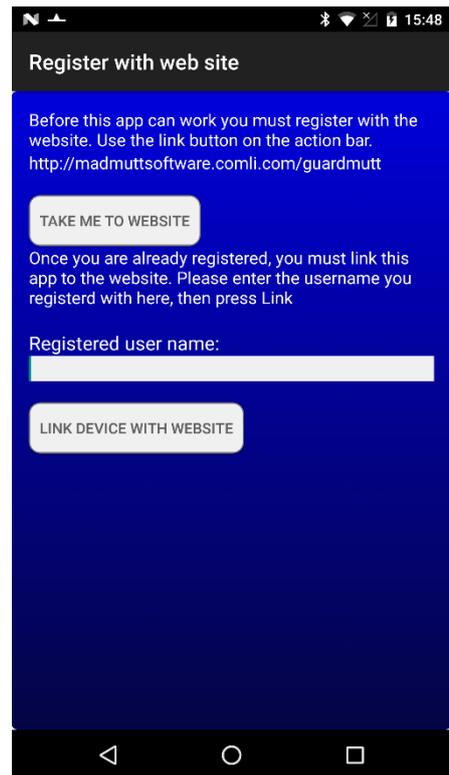
2. step1 is done you must link your Android device to the [Guard Mutt Website](#) user you created. You only need do this once.
3. Open the app. On Android6 or newer you will have to agree to enabling the device's GPS. Later if you want to use the remote photograph feature you will have to agree to the camera permission also.
4. You should be directed to the "register" view, which looks like this on the right. If not, touch the link  icon on the action bar. If you see the dialog on the right, touch "take me to link".

### **Device not linked to web site**

Device not linked to web site. Before using the app you must link this device to the guard Mutt website

**CANCEL TAKE ME TO LINK**

5. Enter the alias (user) name you previously registered on the website.
6. Touch the “Link with website” button.
7. If all works you will get a message “Device now registered. Now return to the main view (press back button)”. You’re done!
8. If linking was successful, the button at the bottom of the view will now read “Unregister device and clear username”. You should only touch that button if you wish to unlink the android device from the Guard Mutt Website so that you can register another device to that user. One user can register one android device only. If you are in the fortunate position that you have many boats to keep track of; you will have to create a new user (or alias) for each one.



Now you are ready to go.

Test that the app is set up correctly by touching "Check Connectivity".

Check the boxes to set the relevant alarms.

You will see some icons in the notification bar



indicates the Guard Mutt service is running



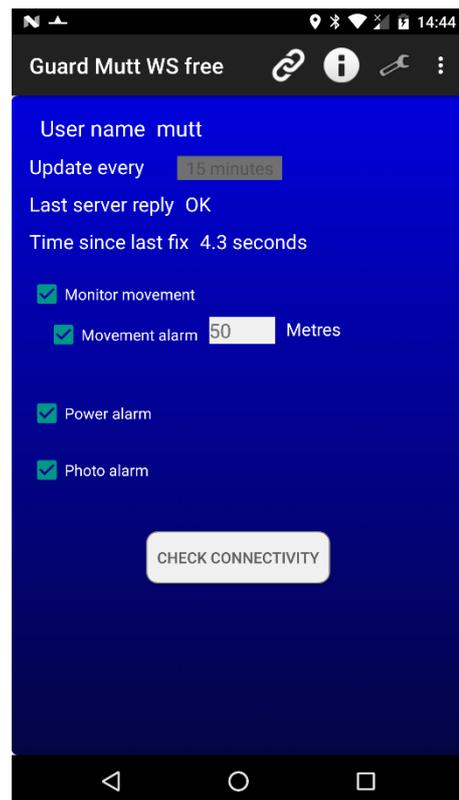
indicates the movement alarm is set



indicates the power alarm is set



indicates the photo alarm is set



Please note: In Android 6 onwards, the icons are likely to be displayed in monochrome, and possibly condensed into the single "dog in kennel" icon.

With the exception of the photo alarm you can quit the Guard Mutt app and the service will continue to run. The photo alarm is an exception; see below.

## The Power Monitor

The app uses the state of your phone's security battery to monitor the mains electricity. If the battery is on charge the app assumes the mains is connected.

Therefore, your Android device needs to be connected to a mains powered charger (not using the boat's 12V batteries) for this feature to work. If you use the 12V boat's power supply the power alarm won't do anything meaningful (unless the boat's batteries discharge completely).

## The Photo monitor

This service will only work if there is a charger connected. When on the mooring I use a 12V adapted intended for cars and costing about £5. If you use the 12V boat's power supply the power alarm won't do anything meaningful (unless the boat's batteries discharge completely).

The app must also be left running in the foreground. You can't hibernate your phone for this service to work. This is a design decision to make it hard to use this app as a snooping app.

Use the preferences view (the  icon in the toolbar) to control the resolution of the rear camera only. Be aware that high resolution images consume network bandwidth (dependent on the quality of the camera in your phone).

## The Movement Monitor

Although it is not required to have your security device connected to a charger you will find that the security phone's GPS, which is a feature this app uses, is very power hungry. When on the mooring I use a 12V adapted intended for cars and costing about £5. If you use the 12V boat's power supply the power alarm won't do anything meaningful.

Currently the movement distance is just a quick check to allow you to see how far your boat has moved since the movement monitor was set. In the future alerts may be sent as emails.

Also note that the [Mad Mutt Navigator app full version](#) has a movement alarm that can send you SMS text messages if your boat moves.

## Remotely Monitoring your Boat

Once the device is set up, you can query the security Android device you left on your boat.

From another device, e.g. a desktop computer, visit the [Guard Mutt Website](#). Login with the alias and password you created earlier. I hope the website is self-explanatory. Like my apps, it is crude but functional, and is being refined.