



AMSAT-UK

SD Card with Raspberry Pi Image and Open source FUNcube Telemetry Decoder

Thank you for supporting the FUNcube project and purchasing this SD card which contains a docker implementation of a FUNcube Telemetry Decoder and data warehouse uploader for the Raspberry Pi (applicable models Pi 2B up to and including 4).

PLEASE NOTE : All of the software on this SD card is available for free download from the following sources

Raspberry Pi Raspbian Image : <http://raspberrypi.org/downloads/>

Docker for Raspberry Pi : <https://docker.com/>

FUNcubeLib - FUNcube Telemetry Receiver : <https://github.com/funcube-dev/>

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Instructions for use:

Before use, there are a couple of user specific modifications that need to be made to configuration files for the software to function correctly.

1. Insert SD card into a PC/MAC/Linux computer and navigate to the /boot/config directory on the first partition on the SD card.
2. Edit the fcwarehouse.conf file and enter your site-id and auth-code for the FUNcube Telemetry Warehouse in the places indicated.
3. IF you do not have a site-id and auth-code for the FUNcube Telemetry Warehouse, or have forgotten them, please see <http://data.amsat-uk.org/registration> for details of obtaining these parameters.
4. Make sure that a FUNcube Dongle (either Pro or Pro + version) is plugged into the Raspberry Pi and connected to an antenna.

Insert the SD card into a Raspberry Pi and allow to boot to the desktop. Configure network access using either wireless or wired networking facilities.

Change into the “funcube-dev” directory and run the fcrun_background.sh script.

This will launch the background docker process that will listen for FUNcube Telemetry from any of the current FUNcube/FUNcube compatible satellites (FUNcube-1, Nayif-1, JY1SAT).

By default, there is no output from the docker image onto a terminal. You can view the output from the telemetry decoder at any time by entering the following docker command:-

```
docker logs decodeserver
```

The docker based system started with the fcrun_background.sh script will restart automatically after a reboot of the Raspberry Pi.

If you wish to see output from the decoder, please run the fcrun_interactive.sh script instead. Note however, this will not automatically restart the decoder if terminated or the Raspberry Pi is restarted.

Please note that we cannot offer individual support for installations of the FUNcube Telemetry Receiver or Docker image. However, we will be watching the FUNcube@Groups.IO forum for questions and will try and respond in a timely manner.