1.) Follow the instructions in the file arm64 Arch Rock64 system setup (arch wiki) or the instructions given on the Arch Wiki https://archlinuxarm.org/platforms/armv8/rockchip/rock64
A 16GB eMMC module is sufficient as the whole setup requires only 2.5GB in space when finished.

2.) Install system monitoring

```
sudo pacman -S screenfetch
sudo pacman -S htop
sudo pacman -S python-pip python-psutil python-future python-bottle hddtemp lm_sensors glances

sudo mkdir /etc/glances

sudo cp /usr/share/doc/glances/glances.conf /etc/glances/glances.conf
```

`sudo nano /etc/glances/glances.conf` — comment / uncomment various sections

```
sudo cp /usr/lib/systemd/system/glances.service /etc/systemd/system/glances.service

sudo nano /etc/systemd/system/glances.service

[Unit]
Description=Glances
After=network.target

[Service]
ExecStart=/usr/bin/glances -w
Restart=on-abort

[Install]
WantedBy=multi-user.target

sudo systemctl enable glances.service
sudo systemctl start glances.service
sudo systemctl status glances.service
```

`sudo reboot` — to restart the machine and all systemd services, once machine is up again check 192.168.X.X:61208 if glances is running correctly.

`glances` — shows a variety of system/machine data which can be configured by changing nano /etc/glances/glances.conf and pressing 'q' returns to console

3.) Install GPS Software

```
sudo pacman -S gpsd

sudo nano /lib/systemd/system/gpsd.socket
```

change ListenStream=127.0.0.1:2947 to ListenStream=0.0.0.0:2947

```
sudo nano /etc/default/gpsd

START_DAEMON="true"
USBAUTO="true"
DEVICES="/dev/ttyXYZ"

GPSD_OPTIONS="-n"
GPSD_SOCKET="/var/run/gpsd.sock"
```

check with ls /dev/ for correct device and replace XYZ with AMA0 or ACM0 or USB0 as appropriate.

```
sudo systemctl enable gpsd
sudo systemctl start gpsd
sudo systemctl status gpsd                    use cgps or gpsmon to check GPS data and position.
sudo reboot
```

4.) Install FlightAware Software

```
sudo pacman -S rtl-sdr lighttpd bladerf git tcl tk autoconf net-tools fakeroot pkgconf which wget

git clone https://aur.archlinux.org/tclx.git
cd tclx
nano PKGBUILD                                 set arch to 'any'
makepkg -si
cd ..

git clone https://aur.archlinux.org/tcllib.git
cd tcllib
makepkg -si
cd ..

git clone https://aur.archlinux.org/tcllauncher.git
cd tcllauncher
makepkg -si
cd ..

git clone https://aur.archlinux.org/tcltls.git
cd tcltls
makepkg -si
cd ..

git clone https://aur.archlinux.org/mlat-client-git.git
cd mlat-client-git
makepkg -si
cd ..

git clone https://aur.archlinux.org/dump1090-fa-git.git
cd dump1090-fa-git
nano PKGBUILD                                 set arch to 'any'
makepkg -si
cd ..
sudo systemctl enable dump1090
sudo systemctl start dump1090
sudo systemctl status dump1090

git clone https://aur.archlinux.org/piaware-git.git
cd piaware-git
nano PKGBUILD                                 set arch to 'any'
makepkg -si
cd ..

sudo nano /etc/piaware.conf

FlightAwareUser                               remove line
FlightAwarePassword                           remove line
piaware-config allow-auto-updates no
piaware-config allow-manual-updates no        change to yes
piaware-config feeder-id XXXXX                replace X with Unique Identifier
                                              found on FlightAware web site.

sudo systemctl enable piaware
sudo systemctl start piaware
sudo systemctl status piaware
```

```
sudo cp /usr/share/dump1090/lighttpd.conf /etc/lighttpd/lighttpd.conf

sudo nano /etc/lighttpd/lighttpd.conf      change server.port to 8080
                                           change index-file.names to ( “gmap.html”, “index.html” )

lighttpd -t -f /etc/lighttpd/lighttpd.conf  check if syntax is OK

sudo systemctl enable lighttpd
sudo systemctl start lighttpd
sudo systemctl status lighttpd

sudo reboot
```

5.) Enable console auto log-in and start glances

```
sudo nano /etc/systemd/logind.conf      uncomment #NAutoVTs=6 and set to NAutoVTs=2

sudo mkdir /etc/systemd/system/getty@tty1.service.d

sudo nano /etc/systemd/system/getty@tty1.service.d/override.conf

[Service]
ExecStart=
ExecStart=-/usr/bin/agetty --autologin user --noclear %I $TERM
Type=simple

sudo systemctl enable getty@tty1.service

nano .bashrc                            add glances to the END of the file

sudo reboot
```

Done, enjoy your new ADSB receiver !