

## Avatar system firmware updates

Date: 7/16/2024	Firmware:38.43.4_stable
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38.43.4 Release Notes

Avatar\_Gnd: 38.43.4

Avatar\_Sky: 38.43.4

Moonlight: 15.1.16

Updates:

1. Support new Goggles L
2. Support new Avatar GT 2W VTX
3. Support Goggles L Head Tracking
4. Support Goggles X beta app

Date: 3/25/2024	Firmware:37.42.5_stable
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Updates:

Avatar\_Gnd: 37.42.5

Avatar\_Sky: 37.42.5

Moonlight kit: 37.42.5-15.1.15

Updates:

1. (Fix) Fix the function of not deleting the upgrade package after upgrading the Sky terminal.
2. (Repair) Repair the problem of menu misalignment in sharing mode.
3. (New) Add anti-flicker function.
4. (New) Add real-time parameter information of Cam in "Debug Mode"
5. (Modify) Kernel temperature alarm at 85° , stop recording at 95° .
6. (Modify) Change the original ground menu zoom function to "Debug Mode".

Date: 2/6/2024	Firmware:37.42.3_stable
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Updates:

AvatarMoonlight\_Sky\_15.1.13 Update Log

Date: 2024-1-11

Gnd: 37.42.3

Sky: 37.42.3-15.1.13

- 1.Fixed some potential bugs.
- 2.New ISO Mod and 2D DNR options.
- 3.Changing the operating logic of exposure in manual mode.
- 4.Add separate upgrade mode for Moonlight video boards.  
(Simply insert the "independ\_upgrade.txt" file into the SD card, and the Moonlight video board will be upgraded automatically after booting.)

Date: 12/30/2023	Firmware:37.42.2_beta
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Updates:

1. Reduce the power consumption and minimize heat generation of Goggles X.
2. Fix the distance measurement failure in 50mbps mode.

# Avatar system firmware updates

Date: 12/13/2023	Firmware:36.42.4
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## Updates:

Thanks to Shannon Baker and other beta testers (Thomas Mccrudden, Erwin Quilloy, Keith Luneau, Leslie Yagen, Marcelo Bezerra, X.q, 77RC, Darren Lines & Crunkle Floop) for their help!

**IMPORTANT NOTE: This firmware version updates the system kernel.**

**As this firmware version updates the system kernel, DO NOT disconnect power while updating!  
Failure to do so will result in hardware bricking!**

## New

1. Support Avatar V2 Dual antenna VTX unit.
2. Support Moonlight 4K camera. (to be released soon)
3. Added real time clock (RTC) calibration and charging function. (All ground devices only)  
Method: Create a new .txt text file on the root of the SD card, name it as "Avatar\_time.txt" (case sensitive), fill in the time format: year, month, day, hour, minute, and second (yyyy-mm-dd hh:mm:ss) e.g. 2023-12-31 23:59:00  
Save the file.  
Put the SD card in the goggles and reboot.  
Goggles will update the time as per the date and time in the Avatar\_time.txt file.  
\*Once off activity: To ensure time is retained, keep power on for more than 10 minutes to charge the built-in RTC battery.  
\*\* VTX will align its time to the goggles upon connection at each power on.
4. Goggles X wallpaper is now changeable  
Method: Put a 1920 x 1080 dimension .JPG format picture onto the root directory of the SD card of the goggles, named "fpv\_new\_no\_signal\_bg\_1920x1080.jpg".  
Reboot goggles.  
\*jpg file will be removed automatically upon successful install.
5. All goggles/VRX now automatically recognize different models of VTX units and will display only the power levels supported by the respective VTX unit. e.g. 1S V3 only displays the maximum power of 500mw.
6. New upgrade progress bar, effective for the subsequent upgrades.

## Fixed

1. MAC OS can't play the DVR video file from a ground unit.
2. Goggles X has stuck pixels when the logo is displayed at booting up.
3. Goggles X may have a black screen when booting up.
4. Goggles X selected display mode (AV in or HDMI) is retained on reboot.  
\*\*Important to realise the prior selected mode is persistent if you are confused by a black screen or 'snow'\*\*
5. Goggles X does not display voltage value correctly.
6. Increase Goggles X oled protection temperature, extend running time and reduce black screen
7. OSD flickering caused by VTX recording. Improved VTX resource utilization.
8. Multi-page OSD now supported during DVR playback on the ground unit.
9. Mosaic corruption on some 1S V3 VTX during flight.
10. Intermittent/occasional mosaic in VTX DVR recording.  
If the signal is not regained within 1 minute, the file will be saved automatically.
11. DVR files being segmented several times due to low signal disconnection.
12. Incompatibility of some brands of U3 SD cards.

## **Avatar system firmware updates**

### **Changes**

1. System kernel updated to support the exFAT file system format for both air and ground units.  
DVR file size maximum of 4GB for a single file now restricted only by SD card or VTX memory storage capacity. i.e ‘REC TIME’ will record a single DVR file based on this setting and will no longer be restricted to 4GB.
2. VTX temperature warning threshold, increased.  
Increase of the temperature warning threshold from 80°C to 90°C. A red frame above 100°C will flash to further warn you.
3. ‘Stand by mode’ reminder changed to ‘standby mode, low rf power’, to remind/clarify to users what this mode is doing.

### **Known Issues**

1. Goggles X does not yet support MAC hardware HDMI (HDCP) as a video source.
2. .osd out of sync when DVR recording file split. Initial DVR and .OSD are in sync, but sync is lost after first split. \*This is mitigated by exFAT support for larger (longer) DVR files during recording.
3. Auto select (based on connected flight controller FW) of custom OSD font is not yet supported.
4. Improvements needed for CVBS (AV in) display latency.

## Avatar system firmware updates

Date: 8/24/2023	Firmware:34.40.15
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### Updates:

Big thanks to Shannon Baker、 Steve Evans and other testers for their help We couldn't have done this without them.

#### 1.New 'race mode'

- 540p Default high frame rate
- Stabilised latency, less variable
- Analog channels available

#### 2.Camera

- (New): Improved camera low light noise reduction (3D DNR option ) The default setting is low
- (Fix):Change the orientation of the imu in gyroflow

#### 3.Product

- Support and fix HD nano KIT V3 wrong voltage display

#### 4.OSD

- (Fix): Multi-page (INAV, Betaflight) custom font support for live view
- (New): Betaflight 4.5 dynamic coloured warning support
- (New): Default built in Betaflight OSD font (test version .png, coloured warning support)
- (New): Default built in Quicksilver OSD font
- (Fix): Limit of 3 custom fonts increased to 16.
- (Fix): Single page and multipage custom fonts available concurrently.
- (New): OSD custom font files now reside on SD card within 'userfont' directory.
- (New): Custom OSD positioning now centred (position persistence saved in font\_update.ini)
- (New): OSD Selection can be updated without requiring VTX to be powered on.

#### 5.DVR

- (Fix): Custom fonts supported in DVR playback
- (New): OSD font used for flight now used during playback (font name embedded in .osd file)
- (Fix): DVR progressive sync issue with .osd file fixed.
- (New): 'Rec time' setting for DVR file split duration \*4GB file limit imposed .It can improve the problem of splitting files into multiple disconnected files under low signal
- (Fix): The UI stuck during playback

#### Known issues:

- VTX Recording inducing OSD flickering
- .osd out of sync when DVR recording file split. Initial DVR and .OSD are in sync, but sync is lost after first split.
- VTX recording may have mosaics.

## **Avatar system firmware updates**

Date: 3/21/2023	Firmware:32.37.10
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Updates:

- 1.Added support for Avatar V2 VTX;
- 2.Added support for Avatar camera V2 and Avatar pro camera;
- 3.Added support for Gyroflow(must be gyroflow 1.5 version);
- 4.Added 4:3 full mode;
- 5.Fixed some known issues.

Date: 12/21/2022	Firmware:29.33.16
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Updates:

- 1.Added OSD recording function;
- 2.Camera Settings can be saved in the vtx;
- 3.Optimized the RF performance of low signal.

Date: 11/04/2022	Firmware:28.32.10
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Updates :

- 1.Optimized the RF performance;
2. Optimized the image quality;
3. Added new coloured INAV OSD; (Just upgrade the firmware, no other action required)
- 4.Compatible with avatar mini 1S VTX.(If you already upgraded to 28.32.9 FW before, then no need to change the FW name, if you never upgraded to 28.32.9, then please change the name of the firmware to AvatarMini\_Sky\_28.32.10.img when updating.)
- 5.Optimized the smoothing when in poor RF, and reduced the latency;
6. Fixed an issue where bit rate display was not accurate during low signal; 7.Fixed some other known issues.

## Avatar system firmware updates

Date: 09/09/2022	Firmware:27.32.10
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Updates:

1. Added support for INAV, KISS, FETTEC OSD;
2. Support custom OSD, can customize color, font, pattern, etc.;
3. Added the function of alarming when the VTX signal is low;
4. Added a viewfinder;
5. Added low power consumption function on the goggles;
6. Optimized the wireless fluency;
7. Optimized image quality;
8. Optimized the menu operation;
9. Fixed some other known issues;

Date: 8/23/2022	Firmware:26.30.6
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Updates:

1. Added file backup, goggles will not brick if firmware update failed;
2. Added 4:3 image mode;
3. Added night mode, improved the night vision;
4. Optimized the picture quality and permeability;
5. The same firmware version can be upgraded without changing the name.
6. Fixed the issue that DVR can't playback;
7. Fixed the issue that the OSD is occasionally not displayed when power on;
8. Fixed some other known issues.

Date: 7/18/2022	Firmware:23.23.4
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Updates:

1. Added the flashing traffic light warning function in case of overheating;
2. Added 50Mbps option in [Setting]-[Bit rate];
3. Added the function of deleting upgrade files after upgraded successfully.
4. Added the function of buzzer prompt under low power;
5. Optimized the camera white balance;
6. Optimized stutter and image quality;
7. Fixed an issue with blurred picture quality at 1200MW power;
8. Fixed the issue of VTX upgrade double backup failure;
9. Fixed the occasional black screen issue on channel 1;
10. Fixed some other known issues.

## **Avatar system firmware updates**

Date: 7/5/2022	Firmware: 21.22.5
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Updates:

1. improved clarity

Date: 6/30/2022	Firmware: 20.22.4
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Launch version