

How to set up Cloud storage for Odin

(MacOS instructions)

This document will guide you through the setup of your Cloud storage for your Odin time lapse camera. The process is fairly straightforward if you carefully follow the below instructions. You can also find a video tutorial on our YouTube page which we would advise you watch, this can be found [here](#):

A quick overview of Odin's Cloud storage feature.

Odin uses free cloud storage solutions to upload your images to, with either Google Drive and DropBox being our preferred suggestions, but you can also select to use FTP servers and many other cloud storage solutions too. Using other cloud storage solutions is not recommended unless you're competent with technology.

We have chosen our solution to upload Odin's image for the below reasons:

- No monthly subscription for our customers (both Google Drive and DropBox offer free storage plans, 15GB and 2GB respectively, more than enough space to store 20,000 images, or more!)
- No GDPR issues as "your" images are stored on "your" Cloud account.
- Ease of adding additional cameras to your Cloud account. Each camera has its own name and folder.

There are a few caveats to if you are going to use Odin's image upload function, these being:

- Image uploads are limited to a 1920x1080 resolution. This is to prevent very large image files being uploaded, and also to prevent too much power being used on each upload session.
- Reduce SIM card costs (if a 4G dongle is being used to connect to the internet) - 300 images is roughly a 100MB upload per day. This would equate to around 3GB per month. Hence, a low-cost 6GB per month SIM card contract would be ample for most users.

We also recommend not uploading more than 300 images / day if using the standard 5W solar panel that comes with the system. This is so Odin should have plenty of power to run throughout winter months, especially in the Jan / Feb months in the western hemisphere.

Finally, Odin is very flexible, so if your requirements are different from the above we can modify the system to suit your needs, both in coding, or power solutions. Just call us to discuss your requirements.

Prerequisites before you start

1. A computer, or laptop. PC or Mac is fine.

You need to have an active account with either:

2. Google Drive

If you have a gmail account, you already have 15GB of free storage space shared across all your photos, files and emails. To sign up for free google account, go here:

<https://www.google.com/intl/en-GB/account/about/>

-or-

DropBox

A popular files and images storage service. Sign up for DropBox and get 2GB of storage space for free. To make an account, go to:

<https://www.dropbox.com/>

3. An Odin time lapse camera with the battery adequately charged up. You should have already successfully connected your Odin to the internet using the “test connection” check. If not, please see the manual on how to do this:
[Odin 4K support page](#)

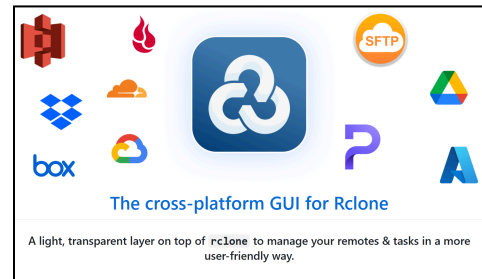
There are 2 ways to set up your Odin camera using either: the *easy way*, or the *hard way*. We strongly suggest using the easy way, but if you have any trouble with this helper software, there is also the hard way.

- a. [Click here for the **Easy Way**](#)
- b. [Click here for the **Hard Way**](#)

Setting Up - The Easy Way

Download the **Rclone-UI** software. This free software is safe and will allow Odin to communicate with your Cloud storage provider.

You can down it for either PC or Mac here: [Rclone-ui](#)



Scroll down the webpage for the download button, highlighted in yellow opposite:



You will have some download options for various OS and processors. Here's advice to help choose :

PC / Windows Machines -

ARM - Is it unlikely you have an ARM processor so do not choose this option, unless you actually know you have an ARM / Snapdragon processor.

X64 - Most modern PC's run on this processor, so choose this option.

Apple macOS Machines -

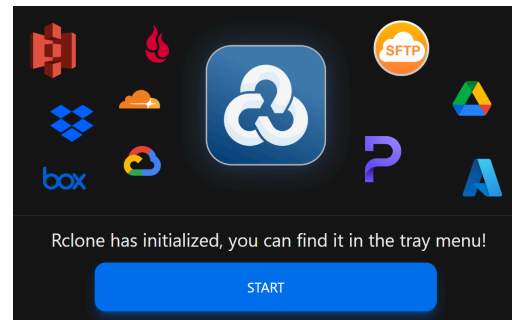
Apple Silicon - Most modern Macs use this processor, but you can check using this help page: <https://support.apple.com/en-gb/116943>

Intel - Again, if you have an older Mac and are unsure, check using this advice: <https://support.apple.com/en-gb/116943>

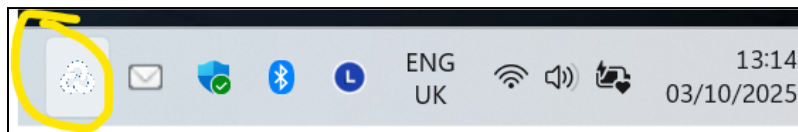
Installing the software

Once you've chosen which version to download, click to download the software to your computer. This will be saved in your “downloads” folder. Click your download and follow the install instructions.

Click next, or yes, to everything. Once installed, you should get a splash screen, like this :

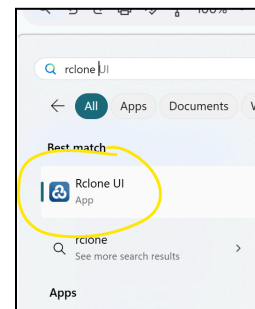


You should also have a little icon in your taskbar, like this:



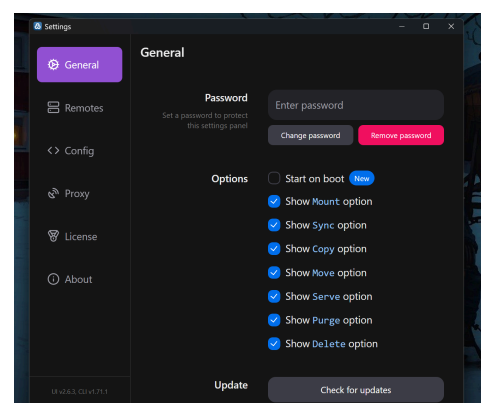
(If you do not see this icon, make sure you have system tray icons set to “show”.)

Note - You can always start the Rclone-UI software by going to the blue windows start button (bottom left) to find the Rclone-UI app program, like this :



Now **right-click** the  icon in the bottom right of your taskbar and you are given some options.

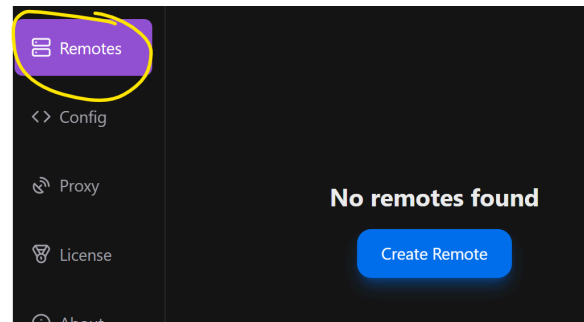
Select **Settings** and you should have a page appear, like this:



Creating your token for Odin

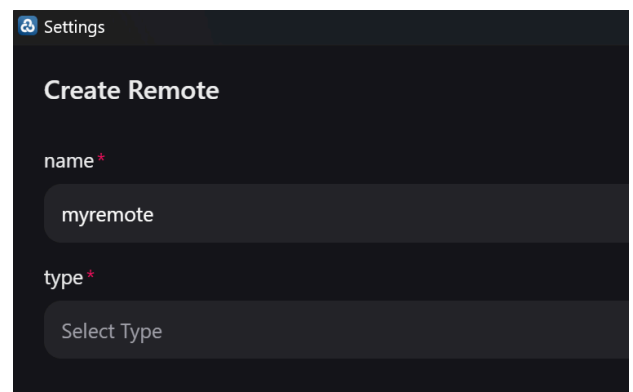
Now click the **Remotes** button in the interface, like shown opposite :

Then click the big blue button “**Create Remote**”

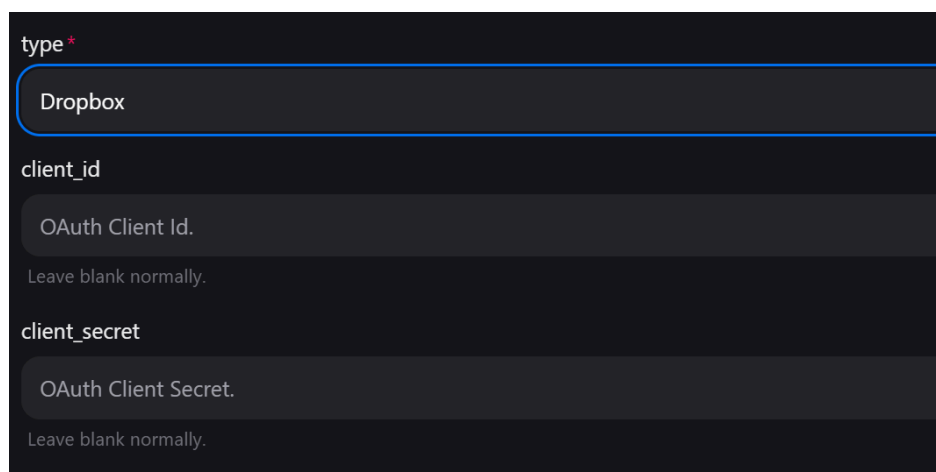


Now enter the name of your token as “**myremote**”. (no caps) Please note this must be named “**myremote**” otherwise your token will not work.

Then select the “**type**”. You can now scroll down though all the various cloud storage options available to you. We would recommend only choosing a storage provider you already have an account with, either Google Drive, or Dropbox.



You will now have a screen similar to this:



Important - Depending on which cloud storage provider you are using, there will be different fields to complete. Google Drive has its own client ID and Dropbox does not, so simply leave Dropbox client ID blank.

If using Google Drive, copy each red text line from the below table into each field in the interface. Use **Ctrl and V** (held together) to paste your copied text into each field.

Google Drive	Client ID 558111807627-rsoh6gajqroqav54dra3mr9dja960llt.apps.googleusercontent.com Client Secret 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 (Note - Our own Client ID uploads images much faster than using the standard shared client.)
DropBox, and all other cloud storage services	Leave both Client ID and Client secret empty

The resulting **Google Drive** page, should look like this:

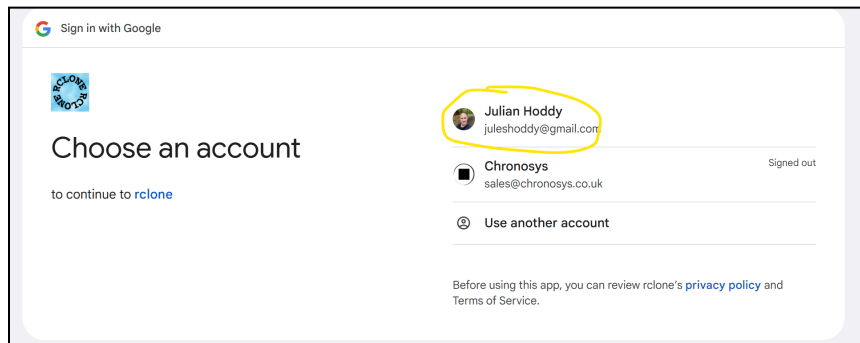
For Google Drive, you also need to add a “scope” option.

Select the option “**drive.file**”
(Using any other option than this will not work!)

Your resulting **Dropbox** page does not need any fields completed, so your page should look all blank, like this, :

Lastly, **do not** click “more options” and simply press the blue button “**Create Remote**”.

You should now have a web browser page appear which is asking for you to confirm if you want rclone to grant access to your cloud storage provider. If you have multiple Google accounts (like shown) you will need to select the Google account you want to use.

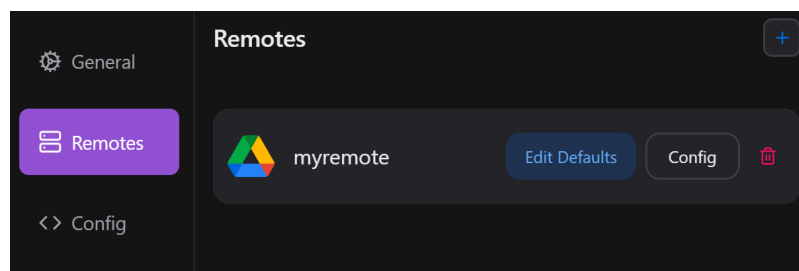


You may also be taken to more screens to confirm you want rclone to talk to your cloud account. Additionally, you may receive emails from your storage provider about activity on your cloud account. Please confirm this is OK if requested.

If all is good, you’ll receive a page saying the below:



Now return the Rclone software and you will see that you have created a new token called “**myremote**” . Like below :

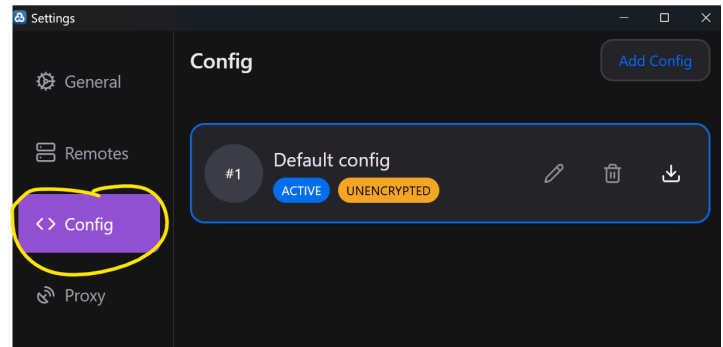


Important - Make sure **only one token is listed** here! Having multiple tokens listed could cause problems. Just click the red delete button to remove any old tokens.

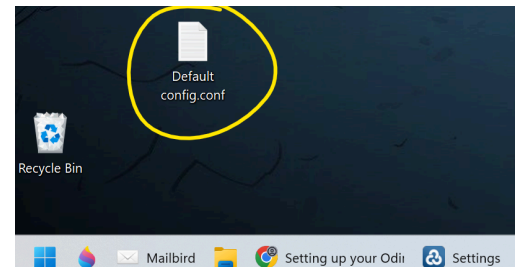
Now click the blue <> **Config** button as shown opposite :

You will see your #1 token you've created is called "Default config".

Click the  icon and select a folder to save this file to your desktop, or downloads folder. Click to save the file.

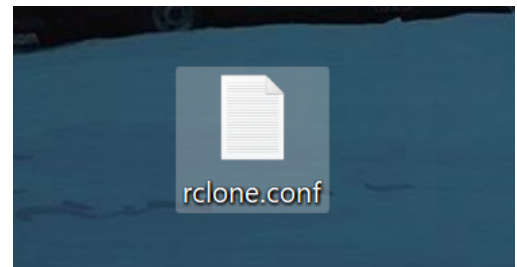


You will now have a file called "Default config.conf" saved to your selected destination. Like this :



Finally, this file needs to be renamed to **rclone.conf** so right-click to edit the name. Your file should now look like this :

That's it for creating the token! Now you have to transfer this token to your Odin camera.



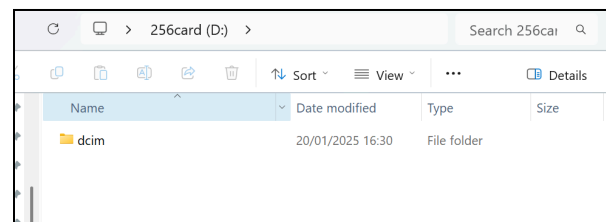
Copying your token to Odin



Your Odin should be turned off. Just remove the lead from the battery if it's not.

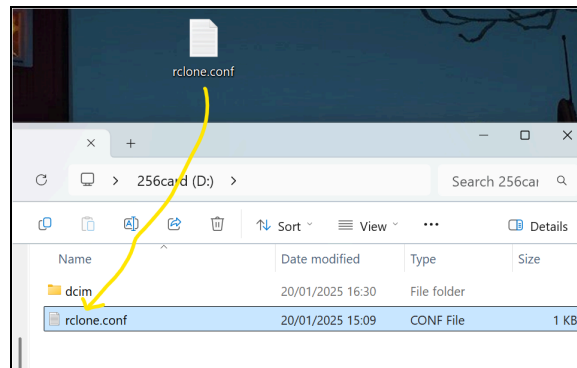
Remove your Odin's thumbdrive SD card and plug it into your computer's USB port.

The SD card should appear in your computer's device list. Click into the SD card so you open it. It should look something like this:



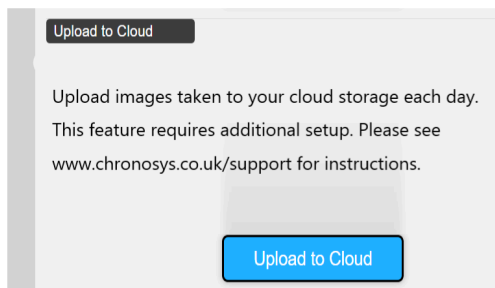
Now drag and drop the **rclone.conf** file from your desktop to your Odin's SD card.

The file **MUST** be placed in the root on the SD card, **NOT** inside the DCIM folder. It should look like this:

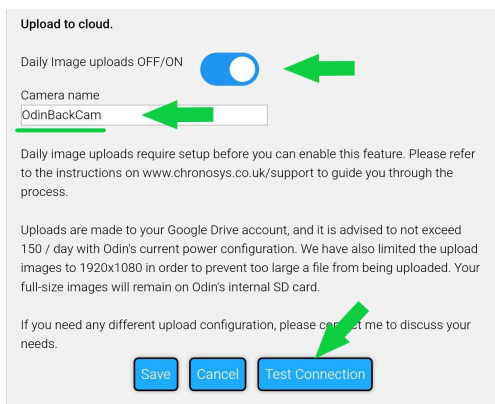


Place the SD card back into your Odin and switch it to “setup” mode. Now plug the power lead back into the battery and Odin will boot up.

Wait 20 seconds then log into Odin's user interface, as normal. (This procedure is explained in the Odin quickstart guide, or the manual.)



Go to the “Upload to Cloud” section in the user interface.



Toggle daily image uploads to ON (toggled to right)

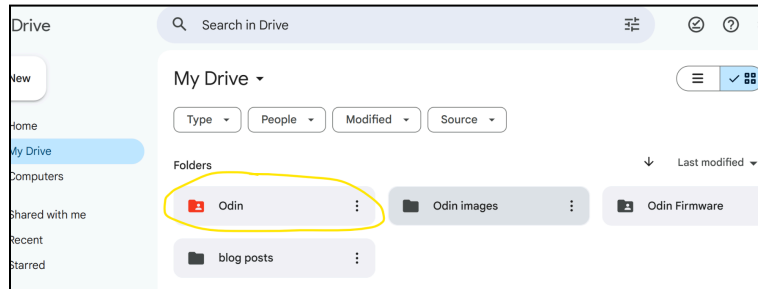
Add a name for the camera. (This will be the name of the folder your images are saved to in the Cloud.)

Hit “test connection”

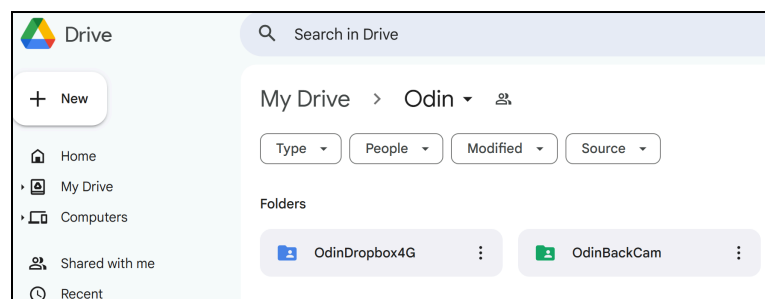
Now wait about 3 to 4 minutes for Odin to test its connection.

Check Odin has connected to your Cloud Storage

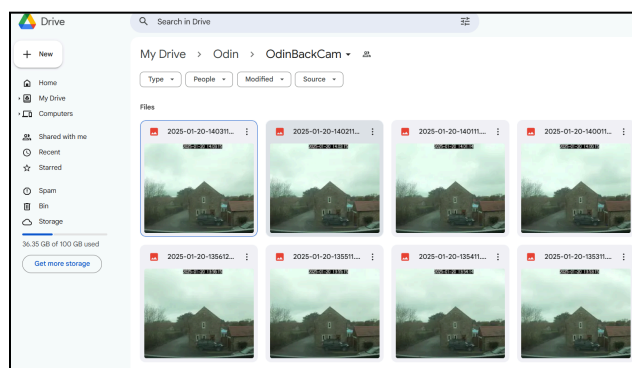
You can now log into your Cloud storage (Google Drive or DropBox) to see if the Odin has created its folders. If successful, you should see something like this:



If you click the “Odin” folder you will be taken to a “sub” folder. Each of your Odin camera named folders can be seen here, like this:



Clicking on your camera folder will take you to your images, like this



And that's it!! Well done if you got this far and it's working as it should!

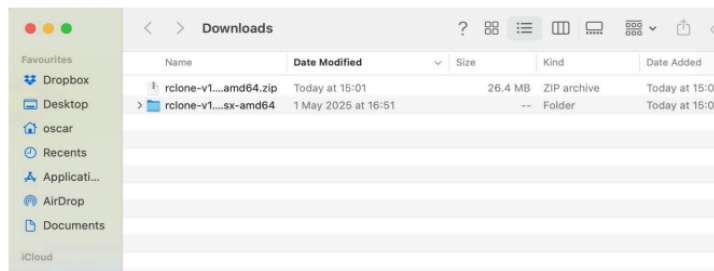
Remember to keep your token safe somewhere as you will be able to use that on another camera, or if you ever need to update your camera.

Setting up - The Hard way

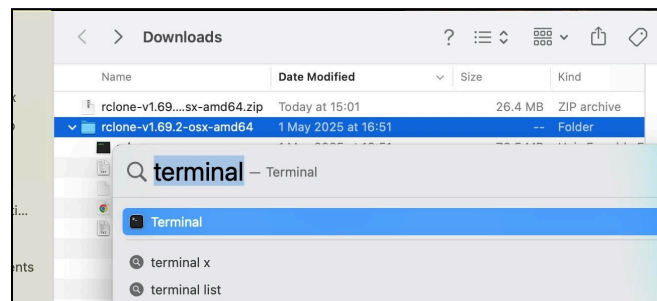
Download the Rclone software. This free software is safe and will allow Odin to communicate with your Cloud storage provider. You can down it for either Windows or MacOS here : <https://rclone.org/downloads/>

Arch-OS	Windows	macOS
Intel/AMD - 64 Bit		
Intel/AMD - 32 Bit		-
ARM - 64 Bit		

Once downloaded, Unzip the contents, like below :
Opening the “Command Prompt (Terminal)”



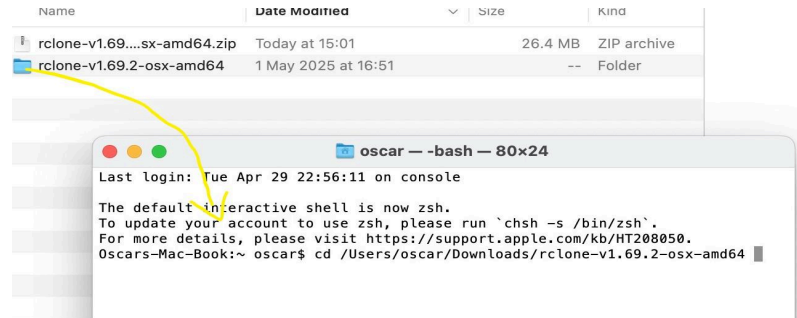
1. Open **Terminal** in Mac OS. Go to your **LaunchPad** and type **terminal**, then click <enter> to open it:



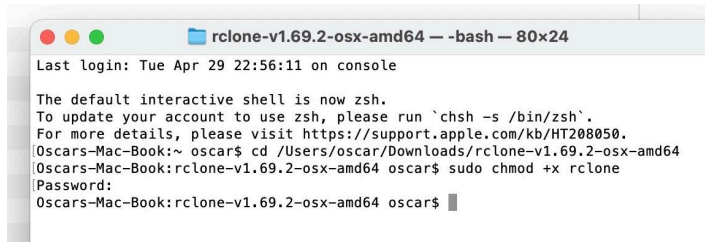
You should now have a window like this:



2. Now type in **CD** and a **space**, then drag and drop your unzipped folder into the terminal window, like below:



3. Hit <enter> to change to folder path. You should now have a path something like this **Oscar-Mac-Book: rclone-v1.69.2-osx-amd64 oscar\$**
4. To allow changes to this file, please now type : **sudo chmod +x rclone** then hit <enter>
5. You will be asked to enter your system password to allow changes to be made to the file. You should have a screen like this now:



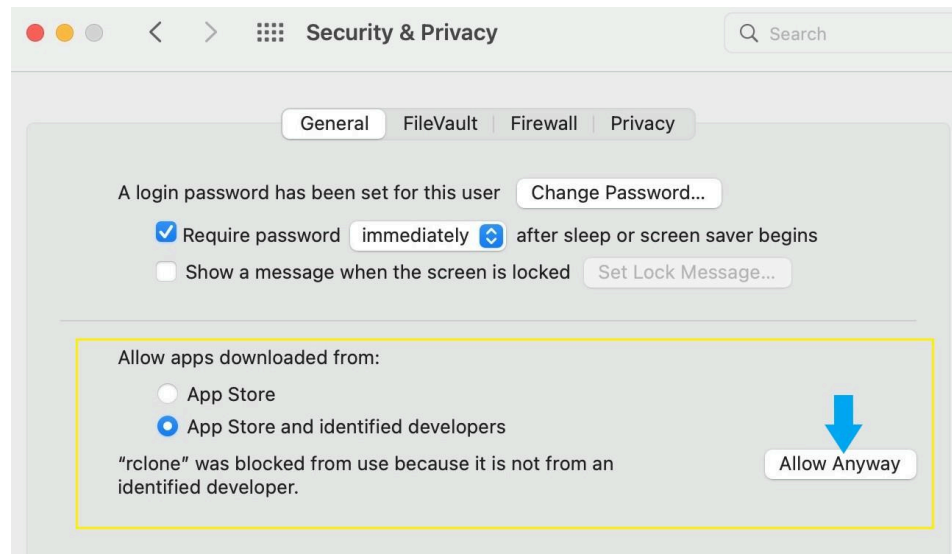
6. Now type in **./rclone config paths** and hit <enter>

Note - on some Mac systems you might now get a warning about an “unidentified developer” which will prevent you from moving forward. If you do not, just ignore this boxed out section.

In order to remove the unidentified developers warning, follow the below:

Go to : **System Preferences**
Then select : **Security and Privacy**
Then select the tab : **General**

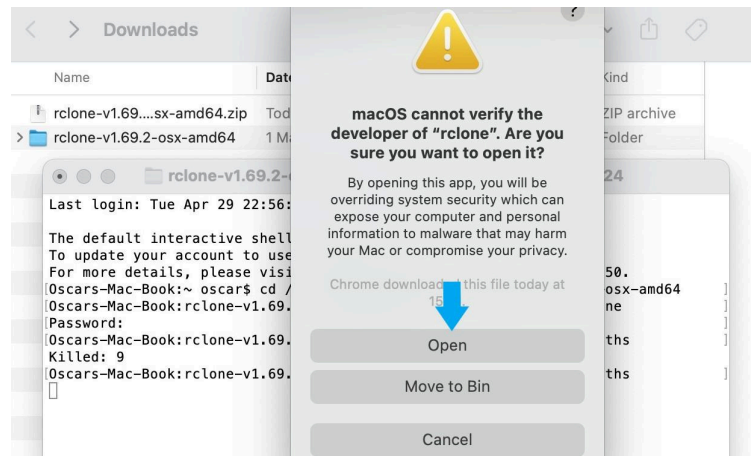
On this screen , click **“allow anyway”** , like below:



When prompted, enter your **system password** to allow changes.

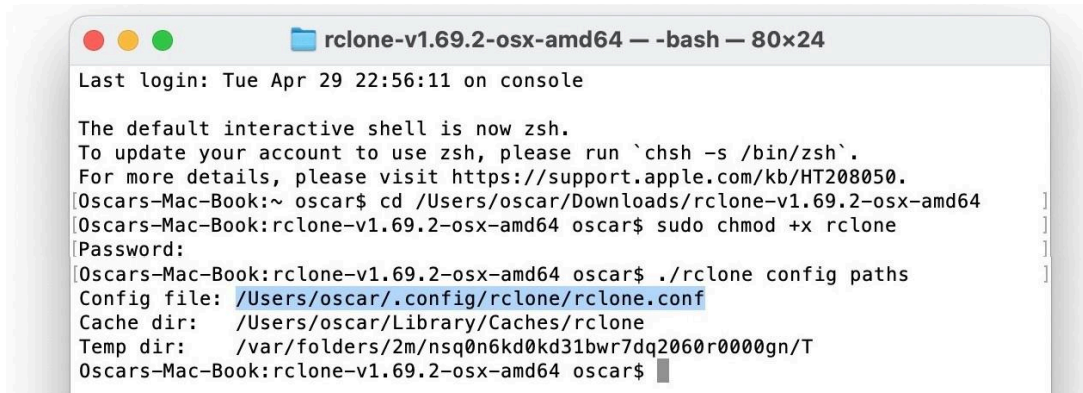
Now go back to your terminal window and try opening the file again.
Type in **./rclone config paths** and hit <enter>

Again, you might get a warning like the below, just click “open”



Copying your token's save location

1. You should have been returned with some location paths, like below. Copy the config path line (in blue) and save it to a new text file, or simply write this path down. (This is the location where your token will be saved later)

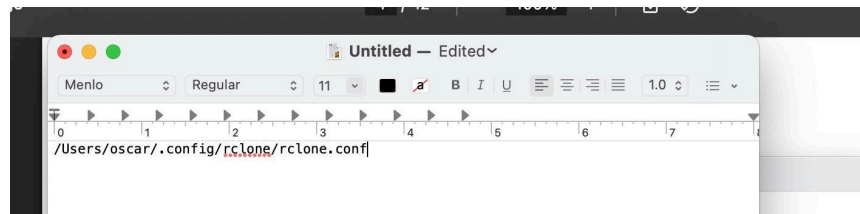
A terminal window titled "rclone-v1.69.2-osx-amd64 — -bash — 80x24". The output shows the user logging in, the default shell being updated to zsh, and the user running a command to display rclone configuration paths. The paths for config, cache, and temp directories are listed. The config file path is highlighted in blue.

```
Last login: Tue Apr 29 22:56:11 on console

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
Oscars-Mac-Book:~ oscar$ cd /Users/oscar/Downloads/rclone-v1.69.2-osx-amd64
Oscars-Mac-Book:rclone-v1.69.2-osx-amd64 oscar$ sudo chmod +x rclone
Password:
Oscars-Mac-Book:rclone-v1.69.2-osx-amd64 oscar$ ./rclone config paths
Config file: /Users/oscar/.config/rclone/rclone.conf
Cache dir:   /Users/oscar/Library/Caches/rclone
Temp dir:    /var/folders/2m/nsq0n6kd0kd31bwr7dq2060r0000gn/T
Oscars-Mac-Book:rclone-v1.69.2-osx-amd64 oscar$
```

Tip - to copy text from the command prompt **highlight the text** you want to copy, then hit “**Command**” and “**C**” together to copy it. To paste what you’ve copied, hit “**Command**” and “**V**” into a text file (.txt file)

You should now have a text file with your copied location, like this:



Configuring your Cloud storage token

1. Go back to your terminal window and type **./rclone config** into your terminal and hit <enter>. You will be asked if you want to start a new config. Type “**n**” to add a new config and press <enter>. As shown below:

```
C:\Users\jules\Desktop\rclone>rclone config
2025/01/20 14:03:20 NOTICE: Config file "C:\Users\jules\AppData\Roaming\
\rclone\rclone.conf" not found - using defaults
No remotes found, make a new one?
n) New remote
s) Set configuration password
q) Quit config
n/s/q> n|
```

2. You will be asked to enter a new name for your config. Enter **myremote** and hit <enter>, as shown below. You will be returned with a list of all the Cloud storage providers available. (note - we will only be using either Google Drive, or Dropbox for Odin.)

```
Enter name for new remote.
name> myremote
Option Storage.
Type of storage to configure.
Choose a number from below, or type in your own value.
1 / 1Fichier
  \ (fichier)
2 / Akamai NetStorage
  \ (netstorage)
3 / Alias for an existing remote
  \ (alias)
4 / Amazon S3 Compliant Storage Providers including AWS, A
61 / Cloud Drive
62 / Cloud Storage
63 / GCS
64 / GCS
65 / GCS
66 / GCS
67 / GCS
68 / GCS
69 / GCS
70 / GCS
71 / GCS
72 / GCS
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99 / GCS
100 / GCS
```

3. As we are using Google Drive for your storage, write **drive** into the field as shown below and hit <enter>. (If you wanted to use Dropbox instead, you would type Dropbox and hit <enter>)

```
61 / seafiler
  \ (seafiler)
Storage> drive
Option client_id
```

4. There now follows a few options to choose (shown in purple). Most of these can be skipped. (Note the below setup is for Google Drive, but Dropbox will have similar, but less, options to choose from.)

Option client_id.
 Google Application Client Id
 Setting your own is recommended.
 See <https://rclone.org/drive/#making-your-own-client-id> for how to create your own.
 If you leave this blank, it will use an internal key which is low performance.
 Enter a value. Press Enter to leave empty.
 client_id> (see below Client ID table)

After entering your choice hit <enter>

Option client_secret.
OAuth Client Secret.
Leave blank normally.
Enter a value. Press Enter to leave empty.
client_secret> (see below table)

After entering your choice hit <enter>

Google Drive	Copy and paste red text: Client ID 558111807627-rsoh6gajqroqav54dra3mr9dja960llt.apps.googleusercontent.com Client Secret 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 (Note - Our own Client ID uploads images much faster than using the standard shared client.)
DropBox , and all other cloud storage services	Leave both Client ID and Client secret empty (basically, skipping these options)

Option scope.
Comma separated list of scopes that rclone should use when requesting access from drive.
Choose a number from below, or type in your own value.
Press Enter to leave empty.
1 / Full access all files, excluding Application Data Folder.
 \ (drive)
2 / Read-only access to file metadata and file contents.
 \ (drive.readonly)
 / Access to files created by rclone only.
3 | These are visible in the drive website.
 | File authorization is revoked when the user deauthorizes the app.
 \ (drive.file)
 / Allows read and write access to the Application Data folder.
4 | This is not visible in the drive website.
 \ (drive.appfolder)
 / Allows read-only access to file metadata but
5 | does not allow any access to read or download file content.
 \ (drive.metadata.readonly)
scope>1

Select option “3” and hit <enter>

```
Option service_account_file.  
Service Account Credentials JSON file path.  
Leave blank normally.  
Needed only if you want use SA instead of interactive login.  
Leading `~` will be expanded in the file name as will environment variables such as  
`${RCLONE_CONFIG_DIR}`.  
Enter a value. Press Enter to leave empty.  
service_account_file>
```

Hit <enter> to skip this option

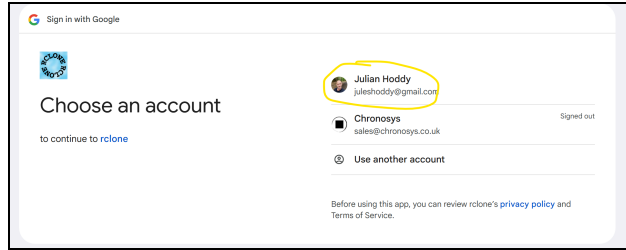
```
Edit advanced config?  
y) Yes  
n) No (default)  
y/n>n
```

Type “n” and <enter> to skip the advanced config.

```
Use web browser to automatically authenticate rclone with remote?  
* Say Y if the machine running rclone has a web browser you can use  
* Say N if running rclone on a (remote) machine without web browser access  
If not sure try Y. If Y failed, try N.  
  
y) Yes (default)  
n) No  
y/n>y
```

Type “y” and <enter> to automatically authenticate your config with your storage provider.
(Note your laptop or PC must be connected to the internet for this to complete.)

You should have a web browser page appear which is asking for you to confirm if you want rclone to grant access to your cloud storage provider. If you have multiple Google accounts (like shown) you will need to select the Google account you want to use.



You may also be taken to more screens to confirm you want rclone to talk to your cloud account. Additionally, you may receive emails from your storage provider about activity on your cloud account. Please confirm this is OK if requested.

If all is good, you'll receive a page saying the below:



Now, go back to your terminal window to finalise your config token.

Configure this as a Shared Drive (Team Drive)?

y) Yes
n) No (default)
y/n>

Hit <enter> to skip this option

Configuration complete.

Options:

- type: drive
- scope: drive
- token:

```
{"access_token":"ya29.a0ARW5m74gvyA0175","token_type":"Bearer","refresh_token":"1//03ywcjR6gBfbdRYrCgYIARAAGAMSNwF-L9IriRiKfSUTqP6oCSLrc3_poo7yHdpTktY0SNcS1L_X3b8MeEdCFweZU1NGIQw","expiry":"2025-01-20T15:57:25.3588395Z"}
```

- team_drive:

Keep this "myremote" remote?

y) Yes this is OK (default)
e) Edit this remote
d) Delete this remote
y/e/d>

Type "y" and <enter> to confirm this is OK

Current remotes:

Name	Type
====	====
myremote	drive

e) Edit existing remote
n) New remote
d) Delete remote
r) Rename remote
c) Copy remote
s) Set configuration password
q) Quit config
e/n/d/r/c/s/q>q

Type “q” and <enter> to quit and exit the token config.

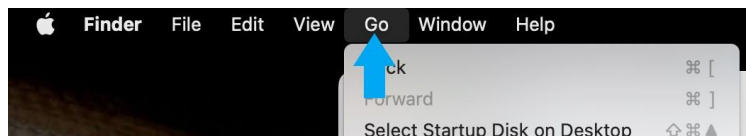
Finding your token on your computer

The token you have just created has been stored in a folder. Depending on what type of computer you use, Mac or PC, it will be saved in different locations.

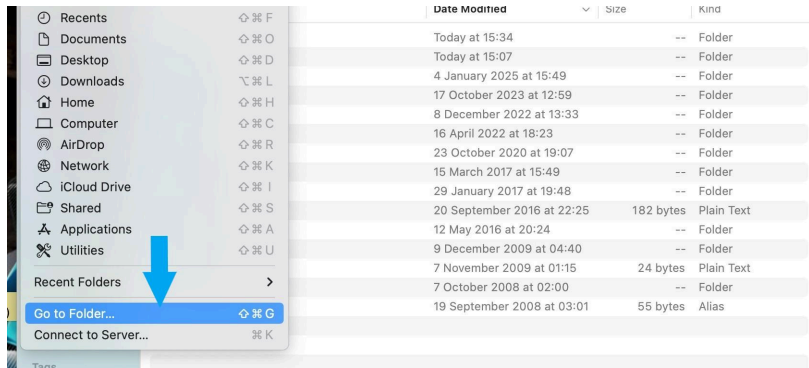
Earlier (on page 6) you saved the location path of the token, so find that path text now. It should be something similar to the below line :

/Users/oscar/.config/rclone/rclone.conf

Select “Go” from your homepage bar, like below:



Then select “Go to folder” , like below :



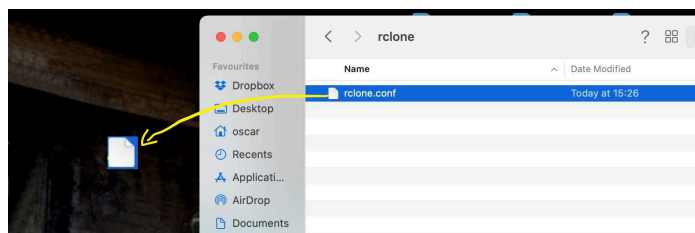
Copy your token file path into your computer's search field without the **rclone.conf** on the end, something similar to this : **/Users/oscar/.config/rclone/**

Your path should look something like below:



Hit <enter>

Your file should appear in the search field. Once found, simply move (drag and drop) the file to your desktop for easy access, as shown below:



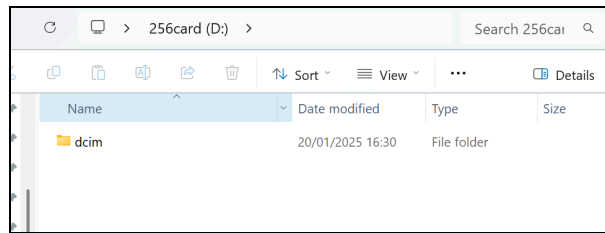
Copying your config token to Odin



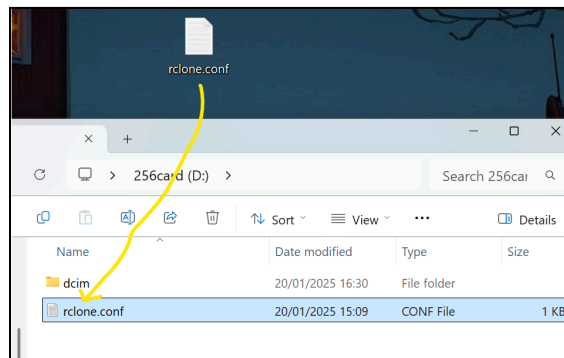
Your Odin should be turned off. Just remove the lead from the battery if it's not.

Remove your Odin's SD card and plug it into your computer's USB port.

The SD card should appear in your computer's device list. Click into the SD card so you open it. It should look something like this:

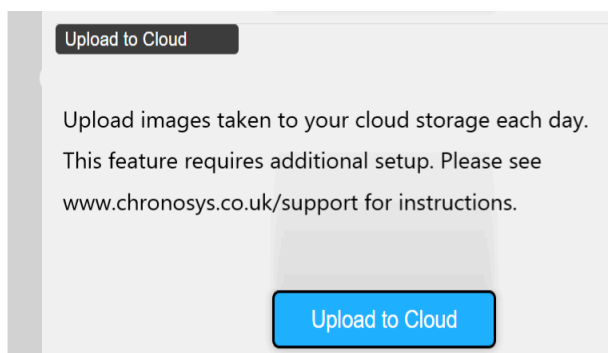


Now drag and drop the **rclone.conf** file from your desktop to your Odin's SD card. The file **MUST** be placed in the root on the SD card, NOT inside the DCIM folder. It should look like this:



Place the SD card back into your Odin and switch it to “setup” mode. Now plug the power lead back into the battery and Odin will boot up.

Wait 20 seconds then log into Odin's user interface, as normal. (This procedure is explained in the Odin quickstart guide, or the manual.)



Go to the “Upload to Cloud” section in the user interface.

Upload to cloud.

Daily Image uploads OFF/ON  

Camera name  

OdinBackCam

Daily image uploads require setup before you can enable this feature. Please refer to the instructions on www.chronosys.co.uk/support to guide you through the process.

Uploads are made to your Google Drive account, and it is advised to not exceed 150 / day with Odin's current power configuration. We have also limited the upload images to 1920x1080 in order to prevent too large a file from being uploaded. Your full-size images will remain on Odin's internal SD card.

If you need any different upload configuration, please contact me to discuss your needs.



Toggle daily image uploads to ON (toggled to right)

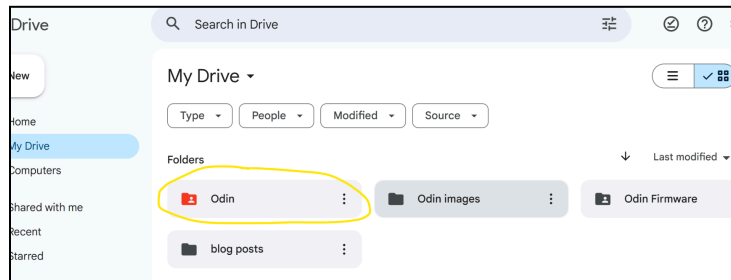
Add a name for the camera. (This will be the name of the folder your images are saved to in the Cloud.)

Hit "test connection"

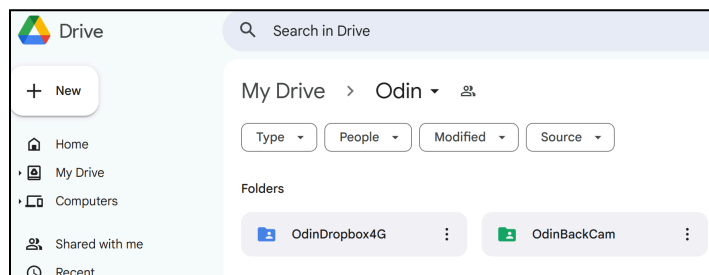
Now wait about 3 to 4 minutes for Odin to test its connection.

Check Odin has connected to your Cloud Storage

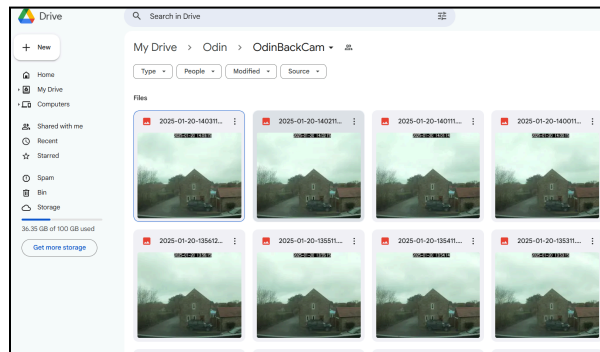
You can now log into your Cloud storage (Google Drive or DropBox) to see if the Odin has created its folders. If successful, you should see something like this:



If you click the "Odin" folder you will be taken to a "sub" folder. Each of your Odin camera named folders can be seen here, like this:



Clicking on your camera folder will take you to your images, like this



And that's it!! Well done if you got this far and it's working as it should!

Remember to keep your token safe somewhere as you will be able to use that on another camera, or if you ever need to update your camera.