Fly Your Boundray Ortho Mission on the DJI Mini 5 Pro

A start-to-finish field guide for loading a KMZ mapping mission onto the DJI RC 2 controller and flying it hands-off. Written for first-time users. No prior waypoint experience needed.

How this works (the big picture)

The DJI Fly app on your RC 2 has **no import button** for waypoint missions. But every waypoint mission you create on the controller is saved as a KMZ file in a folder you can reach from a computer. So the trick is simple:

1. Create a throwaway "dummy" mission on the RC 2 so DJI Fly makes a mission file.
2. Swap that file with your Boundray KMZ, keeping the exact same file name.
3. Open the mission in DJI Fly. It now flies your Boundray grid.

One more thing to know: your Boundray KMZ **controls the camera too**. Every shot position carries a take-photo command with a 0 second hover, so the drone flies the grid and photographs the site entirely on its own. Your only camera job is making sure nothing else fires it: **leave Timed Shot OFF**. Part 5 covers the details plus a manual fallback if a flight ever misbehaves.

What you need

- DJI Mini 5 Pro with a charged battery and a microSD card installed
- DJI RC 2 controller (charged)
- A USB-C data cable (the charging cable that came with the controller works)
- A Windows PC or Mac. Mac users: install the free "OpenMTP" or "Android File Transfer" app first
- Your mission exported from Boundray as DJI KMZ (Part 1)

> **TIP: Time required**
> About 15 minutes the first time. Under 5 minutes once you have done it twice. The flight itself for a typical crosshatch mission like yours runs 5 to 6 minutes on a single battery.

PART 1

Export the mission from Boundray

1

Finish your mission settings

In the Ortho Mapping Mission window, confirm your area, altitude, overlaps, and crosshatch are set the way you want. Note the **Shot interval** and **Flight time** values in the stats panel. The flight time tells you whether the mission is behaving once airborne, and the interval only matters if you ever use the manual fallback in Part 5.

2

Export as DJI KMZ

In the Export box, click **DJI KMZ**. This is the only format the Mini 5 Pro understands, and it includes the camera commands that make the drone shoot on its own. Save the file somewhere easy to find, like your Downloads folder or Desktop.

> **HEADS UP: Do not unzip or rename it yet**
> A KMZ is a compressed file. Some computers offer to "extract" it. Leave it alone. You will rename it later to a very specific name, in Part 3.

PART 2

Create the dummy mission on your RC 2

This throwaway mission exists only so DJI Fly creates a mission file we can replace. You can do this at your desk. The drone must be on and connected to the controller, but it does not need to fly.

3

Power up and connect

Turn on the Mini 5 Pro and the RC 2 (short press, then long press the power button on each). Wait until the controller shows the live camera view from the drone.

4

Open Waypoint mode

In the camera view, look at the **left edge of the screen** for the waypoint icon (a small dotted-path symbol). Tap it. The screen switches to a map view with waypoint controls. If you do not see the icon, swipe or tap the left-side toolbar to expand it, or update DJI Fly via Profile > Settings.

5

Drop two waypoints and save

Tap anywhere on the map to place waypoint 1, then tap a second spot nearby for waypoint 2. Location does not matter at all. This mission will never be flown.

Tap the **Save** (checkmark) button. If it asks for a name, accept the default. Then exit waypoint mode and power the controller down.

> **TIP: Just made it? Easy to find**
> Because you created this mission seconds ago, it will be the newest folder on the controller. That is exactly how you will identify which file to replace in the next part.

PART 3

Put the Boundray KMZ on the controller

6

Connect the RC 2 to your computer

Plug the USB-C cable into the port on the RC 2 and into your computer. **Power the controller on.** If the RC 2 screen shows a prompt asking how to use the USB connection, choose **File Transfer / MTP** (not "Charge only").

On Windows, the controller appears in File Explorer under "This PC" as **DJI RC 2**. On Mac, open OpenMTP or Android File Transfer and it appears there.

7

Navigate to the waypoint folder

Open the controller's storage and click through these folders in order:

```
DJI RC 2 > Internal shared storage > Android > data > dji.go.v5 > files > waypoint
```

> **HEADS UP: Controller not showing up, or folders missing?**
> 1) Try a different cable. Some USB-C cables are charge-only. 2) Make sure the RC 2 is powered ON, not just plugged in. 3) Unplug and replug, and watch the RC 2 screen for the USB mode prompt. 4) On Mac, plain Finder cannot browse Android devices. You must use OpenMTP or Android File Transfer.

8

Find your dummy mission's folder

Inside **waypoint** you will see one folder per saved mission. Each has a long random name made of letters, numbers, and dashes (called a GUID), something like:

```
F4925B45-53F6-4220-9286-F90298B773CA
```

Sort the folders by **date modified**. The newest one is the dummy mission you just made. Open it. Inside is a single KMZ file named exactly the same as the folder.

> **TIP: Second way to double-check**
> The folder waypoint > map_preview holds a small JPEG picture of each mission, named the same as its mission folder. Open the image that shows your two dummy points, and its file name tells you which mission folder is the right one.

9

Rename your Boundray KMZ to match

On your computer, make a copy of the Boundray KMZ you exported in Part 1. Rename the copy so it is **exactly identical** to the dummy file's name, including the .kmz ending. Easiest method: click the dummy file once, press F2 (or right-click > Rename), copy the whole name, then paste it as the new name of your Boundray file.

10

Swap the files

Delete the dummy KMZ inside the mission folder on the controller, then drag your renamed Boundray KMZ into that same folder. When it finishes copying, safely eject the controller and unplug the cable.

> **HEADS UP: The name must match perfectly**
> If even one character is different, DJI Fly will not see the mission or it will still show the old dummy points. This is the number one cause of "it didn't work".

PART 4
Verify and launch the flight

11

Confirm the mission loaded

At the flight site, power on the drone and RC 2. Open **Waypoint mode** again (same icon as Part 2) and open your saved mission list. Select the mission. You should now see your Boundray grid drawn over the map instead of the two dummy points. If you still see the dummy points, the file name did not match. Redo Part 3, steps 8 to 10.

12

Pre-flight checklist

- Battery full, microSD card in the drone with free space
- Take off area clear, home point recorded (the app announces it)
- Mission altitude is safe for the site: towers, trees, buildings
- Camera set per Part 5: Single Photo, 12 MP, Timed Shot OFF
- You can keep the drone in sight for the whole grid

13

Start the mission

With the mission selected, review the on-screen summary (speed, altitude, waypoint count), then tap the **GO / Start** button. The drone takes off (or departs from hover), flies to waypoint 1, and works through the grid automatically, taking its own photos as it goes. Keep your hands near the sticks. Moving them or tapping the pause button interrupts the mission, and Return to Home is always available if anything feels wrong.

PART 5
Camera control: the mission shoots for you

The mission controls position, altitude, heading, gimbal, AND the camera. Boundray's export puts a take-photo command with a 0 second hover at every shot position, so a correctly loaded mission photographs the site by itself. The one rule that still matters: exactly one thing controls the camera, and the mission is that thing. Timed Shot stays off.

14

Set the camera BEFORE takeoff: Single Photo, 12 MP, Timed Shot OFF

In camera view, open the photo settings and choose the standard **12 MP** size, not 48 MP (the camera cannot write 48 MP frames fast enough for mapping-rate shooting). Then check the capture mode near the shutter: it must be plain **Photo (Single)**. If Timed Shot or any interval mode is on, turn it off.

> **HEADS UP: Never add Timed Shot to a Boundray mission**
> The mission already fires the camera. Running Timed Shot on top means duplicate frames and a mess to sort in WebODM. One shooter per flight, and the mission is the shooter.

15

Launch, then confirm shots are firing on the first line

Tap GO and watch the screen during the first grid line. You should see the photo counter climbing (and hear the shutter tick) every couple of seconds while the drone keeps moving. If the counter has not moved by the end of the first line, pause the mission or use Return to Home, then fly the mission with the manual fallback below instead.

16

Watch the clock against the plan

The Boundray stats panel predicted your flight time, and a healthy mission lands close to it. If the drone visibly stops at every shot position and the flight runs far past the estimate, the KMZ came from an older Boundray export or the hover setting is above 0. Finish or land, then re-export from current Boundray, redo the file swap in Part 3, and fly again.

17

After landing, spot check the card

The number of photos on the microSD card should roughly match the **Photos** count from the mission stats. A few extra frames from takeoff or landing are harmless. WebODM uses what overlaps and ignores the rest.

MANUAL FALLBACK: fly the path, shoot with Timed Shot

Use this only if a mission will not fire the camera on its own. Re-export the mission from Boundray with camera commands turned OFF, redo the file swap, then: set 12 MP, choose **Photo > Timed Shot**, and set the interval to the mission's **Shot interval** rounded DOWN to the nearest option (2, 3, 5, 7, 10 s). A 2.3 s plan becomes 2 s; a 3.0 s plan is exactly 3 s. Rounding down just adds overlap; rounding up leaves gaps between photos. Press the shutter to start Timed Shot right as you tap GO, and press it again to stop after the last waypoint. Never run Timed Shot while a camera-command KMZ is flying.

> **TIP: Lock your exposure**
> For the most even orthomosaic, set exposure manually (tap the camera settings, switch from Auto to Pro/Manual) so brightness does not shift between grid lines. Pick settings that look good over the middle of the site. If that feels like too much on flight one, Auto still works fine.

PART 6

Troubleshooting and quick reference

Problem	Fix
Drone pauses at every shot point and the flight runs way past the estimate	The KMZ came from an older Boundray export or the hover time is set above 0 seconds. Re-export the mission from current Boundray (0 second hover is the default), redo the file swap in Part 3, and fly again. If it persists, use the manual Timed Shot fallback in Part 5, never both at once.
No photos on the card after the flight	The camera was in the wrong mode, or the mission file had no camera commands. Confirm capture mode is Photo (Single) and re-fly, watching the counter on the first line. If the mission still will not shoot, use the manual Timed Shot fallback in Part 5.
Mission list still shows the dummy points	File name mismatch. Reconnect to the computer and confirm the KMZ inside the mission folder has the exact GUID name, character for character, with .kmz on the end.
Mission does not appear at all	You may have deleted the dummy KMZ without copying the new one in, or copied it to the wrong folder. Check the folder again. Worst case: delete the folder, make a fresh dummy mission, and redo the swap.
Computer cannot see the waypoint folder	RC 2 must be powered on and set to File Transfer/MTP mode. Try another cable and another USB port. Mac requires OpenMTP or Android File Transfer.
Drone flies curves instead of straight lines	Normal DJI behavior at corners. Boundray's edge buffer (yours is set to 20 m) extends the lines so turns happen outside the mapped area. Your coverage is fine.
Photos look too dark or bright on some passes	Auto exposure adjusting mid-flight. Use manual exposure next flight (see the tip in Part 5).
DJI Fly updated and the folder moved	DJI occasionally relocates the waypoint folder in app updates. If the path in Part 3 is empty, create a new dummy mission and search the controller storage for the newest .kmz file to find the new location.

The whole flow on one line

1. Export DJI KMZ	**2.** Dummy mission on RC 2	**3.** USB swap + rename	**4.** Verify grid	**5.** Timed Shot OFF	**6.** GO

Good to know: your dummy mission trick only has to be done once per mission slot. To load a different Boundray mission later, you can either overwrite this same file again with a new renamed KMZ, or create another dummy mission and repeat the swap so both missions live on the controller.