

Fixed Wing Mission Planning

Trimble UX5

Flight checklist

1 of 26

Connect the modem

- Make sure the download cable is disconnected from the modem.
- Attach the RF antenna to the modem.
- Attach the modem and antenna to the back of the tablet.
- Insert the modem cable into the USB port of the tablet.



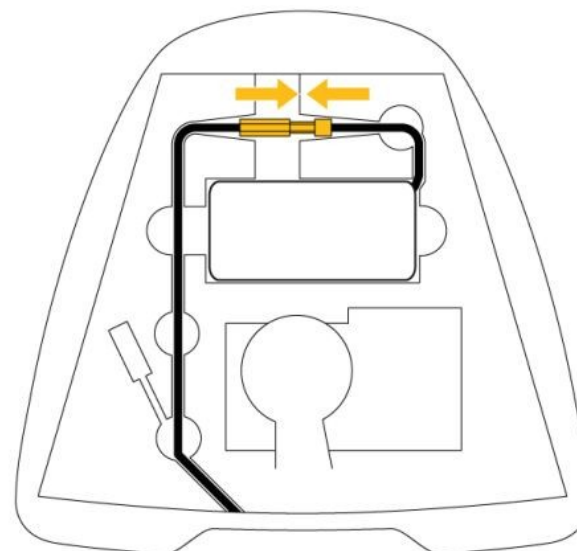
Flight checklist

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Connect the battery

- Insert a fully charged battery into the battery compartment of the payload bay.
- Connect the main power connector on the battery to the power connector in the rover.

Note - Make sure you are using a properly balanced battery.



Step 3-5

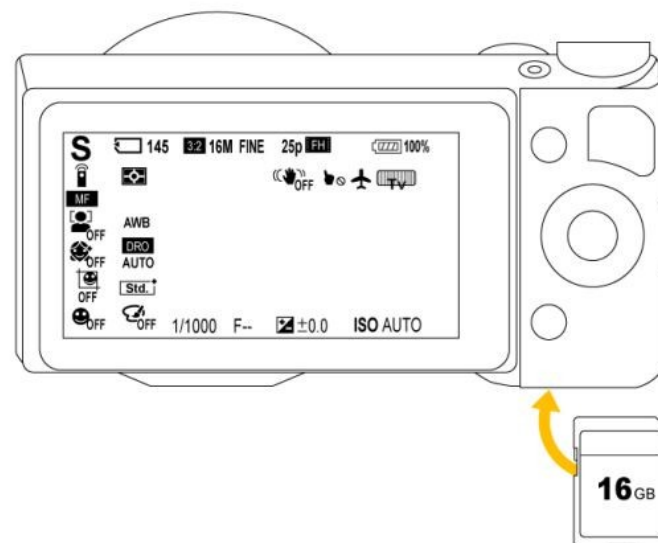
- Ground Control Station (GCS) Connects to Autopilot
- Runs Systems Checks

Flight checklist

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Prepare the camera

- Insert an empty SD card.
- Turn the camera on and check if the settings are correct (click [?] below).
- Set the shutter speed. The flight requires a minimum shutter speed of 1/1250. Take the current light conditions into consideration.



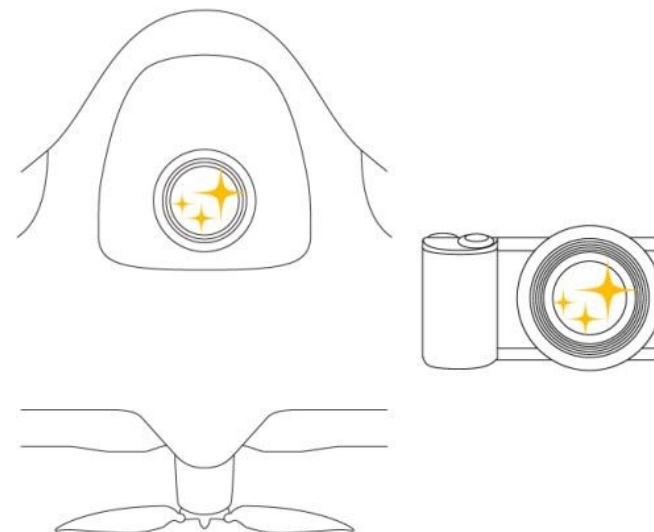
Flight checklist

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Clean the camera lens and filter

Using first the wet camera wipes and then the dry camera wipes, thoroughly clean the camera lens and both sides of the camera filter in the body. Make sure there are no specks of moisture or dust, as these will affect the image quality.

Note - Only use wipes that are specifically intended for cleaning camera lenses.



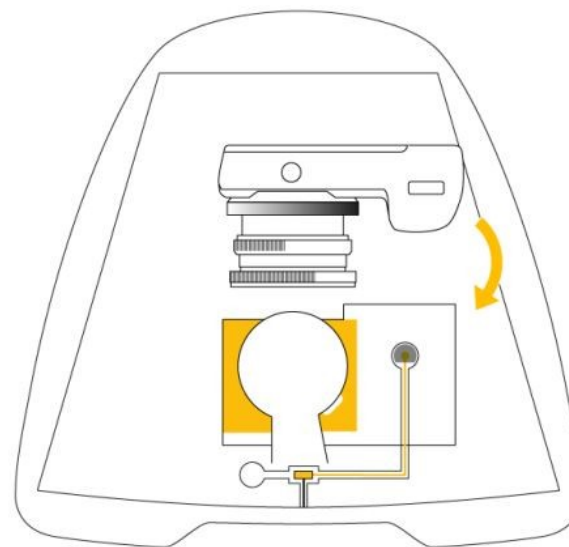
Flight checklist

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Insert the camera

- Insert the camera into the camera cavity of the payload bay.
- Secure the camera using the Velcro strap.

Note - After inserting and securing the camera, check the shutter speed as the settings control might have spun and changed the setting.



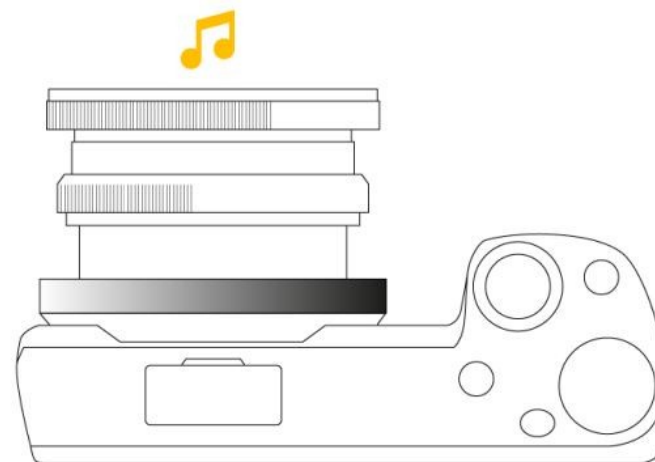
Flight checklist

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Check the camera trigger

Click the button below to trigger the camera to take a picture.

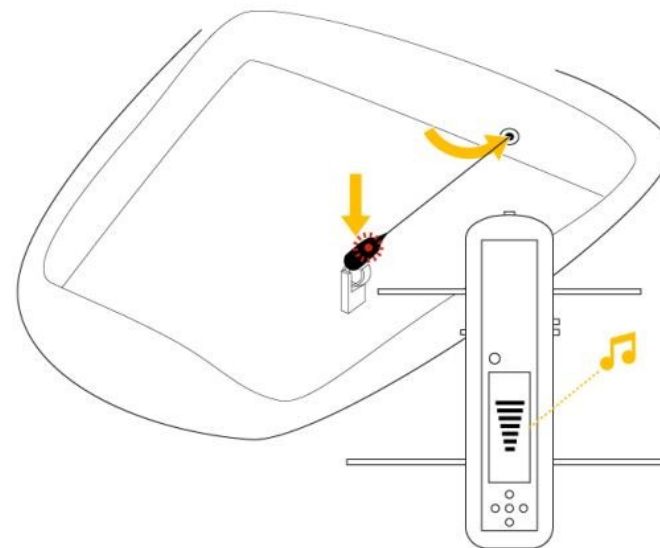
☐ Camera trigger is OK
(sound)



Flight checklist

Insert the tracker (optional)

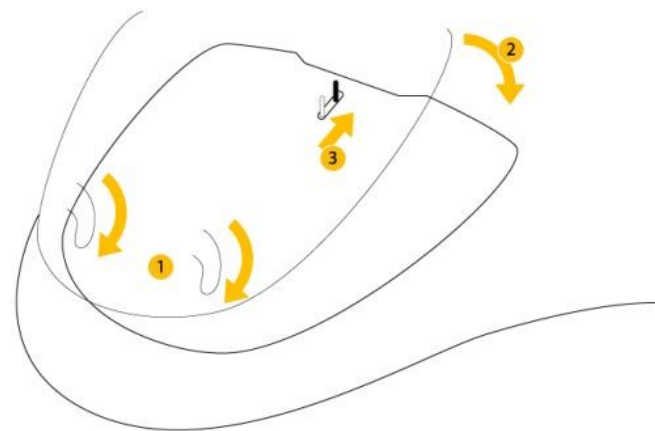
- Turn on the tracker transmitter.
- Make sure you can hear the transmitter using the tracker receiver.
- Insert the tracker transmitter into the payload bay.



Flight checklist

Close the payload bay

- Make sure the payload is secured with the Velcro strap.
- Attach the top cover to the payload bay and make sure it is secure.

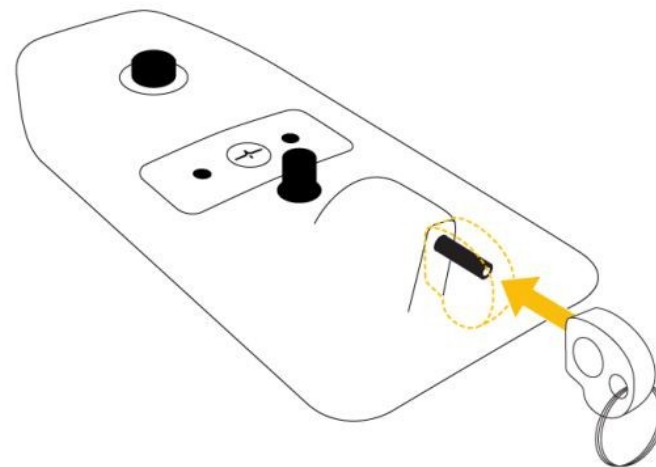


Flight checklist

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Cover the pitot tube

Put the pitot tube cover on the pitot tube.

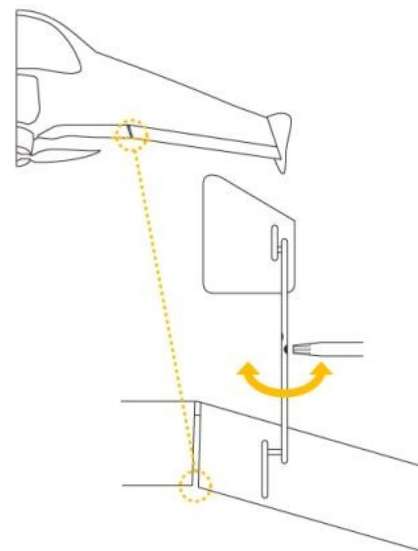


Flight checklist

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Check the elevon level

Make sure that the outboard elevons are leveled with the inboard elevons. The difference should be less than 1 mm. If required, use the Torx T6 screwdriver to adjust the elevons.

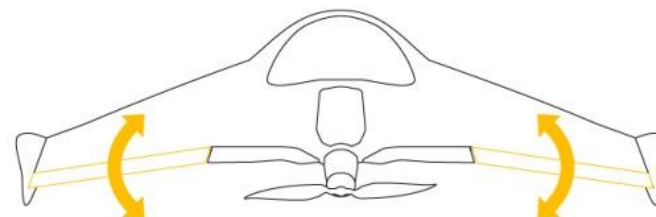


Flight checklist

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Check the elevon response

- Make sure that the elevons can move freely and are not obstructed in any way.
- Tap the button below and watch the elevons on the rover. Make sure the elevons move in response to the button commands. Make sure the elevons move freely and fluently, and in unison.

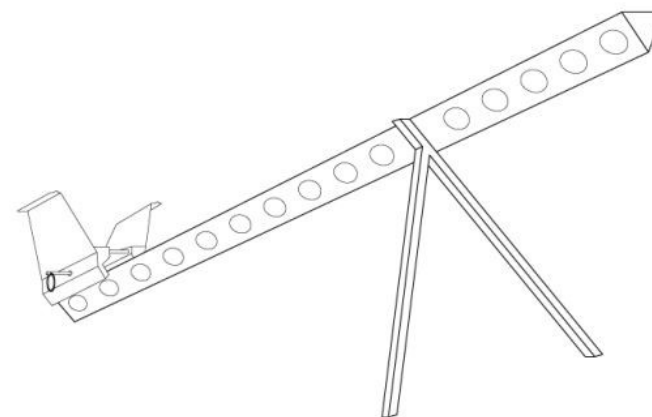
Stop elevon

Flight checklist

Assemble the launcher

- Make sure the launcher is assembled as shown in the picture.
- Do not tighten the elastics yet.

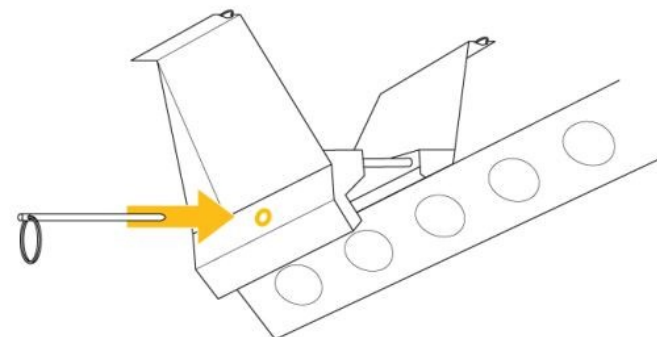
Note - For more information on how to assemble the launcher, refer to the Trimble Launcher Quick Start Guide.



Flight checklist

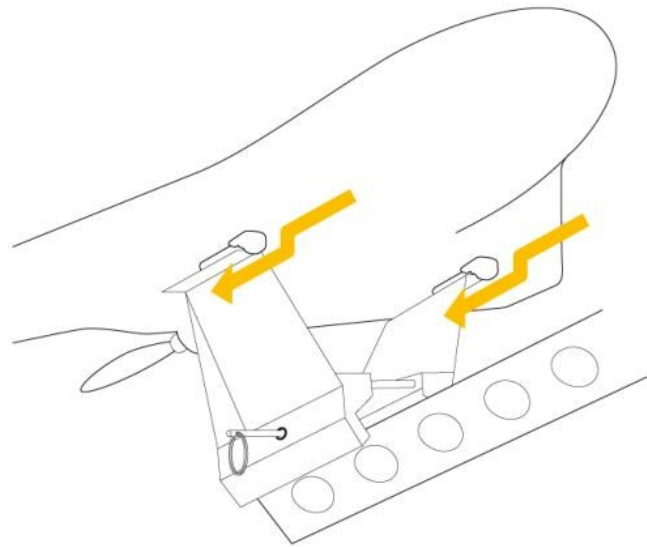
Insert the safety pin

Make sure the safety pin is inserted into the launch dock.



Place the rover on the launcher

Position the aircraft at the front of the launch dock and use your finger tips to guide the launcher slats on the underside of the aircraft onto the lips of the launch dock.



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Navigation sidebar with icons: layers, home, location, list, and download.

Step 18

- Initialize Autopilot
- Load Flight Plan

Flight checklist

Remove the pitot cover

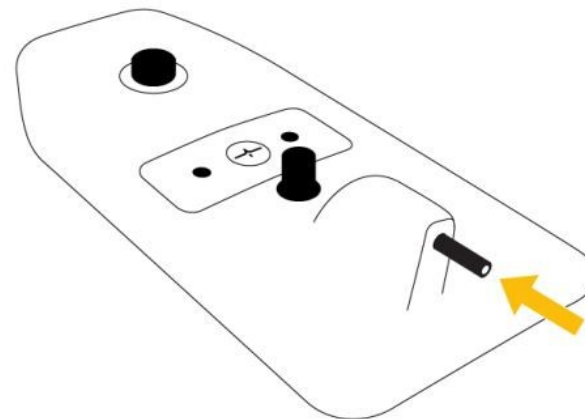
Check the airspeed on the tablet. If the airspeed is below 20 kph, you can safely remove the pitot cover.



Flight checklist

Check the airspeed response

Press and hold the pitot tube for no more than 5 seconds. Make sure that the airspeed changes. The airspeed should reach at least 50 kph.

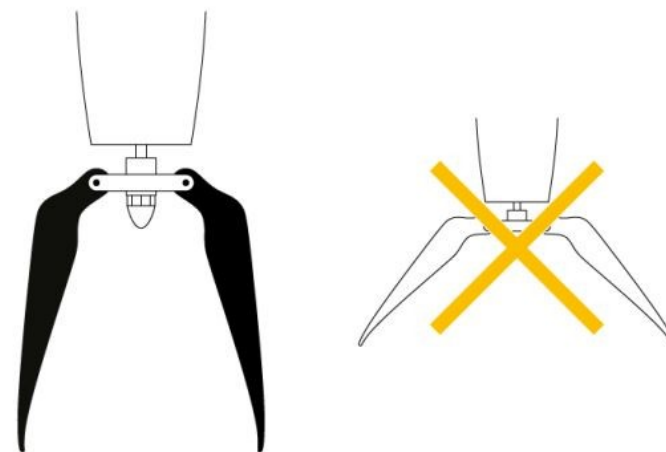


Flight checklist

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Position the propellers

Check the position of the propellers on the aircraft and make sure they are pointing backward. If the propellers are not positioned correctly, carefully adjust them.

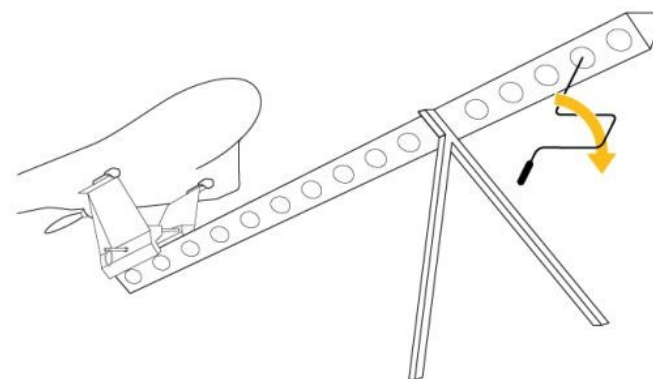


Flight checklist

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Tighten the launcher cord elastics

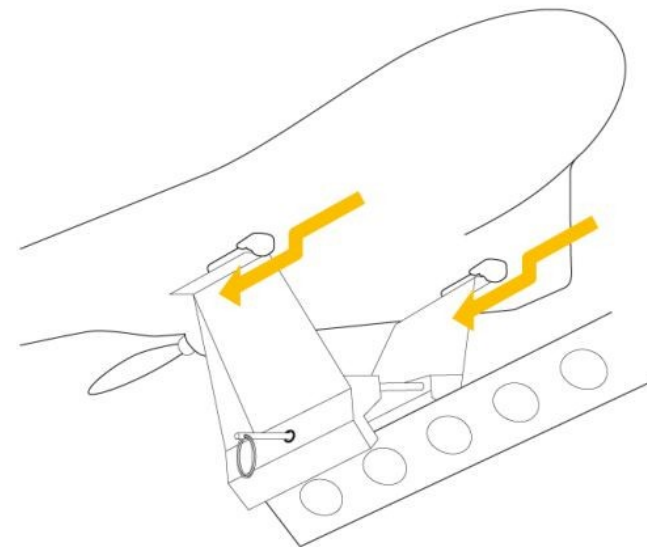
- Insert the crank onto the nut located toward the front end of the launch slide.
- Stretch the launcher cord using the crank. In normal circumstances, the node between the cord and elastic should be in the middle of the hole numbered '4' on the launcher.
- Remove the crank.



Flight checklist

Verify the rover position

Make sure the rover is correctly positioned on the launch dock.

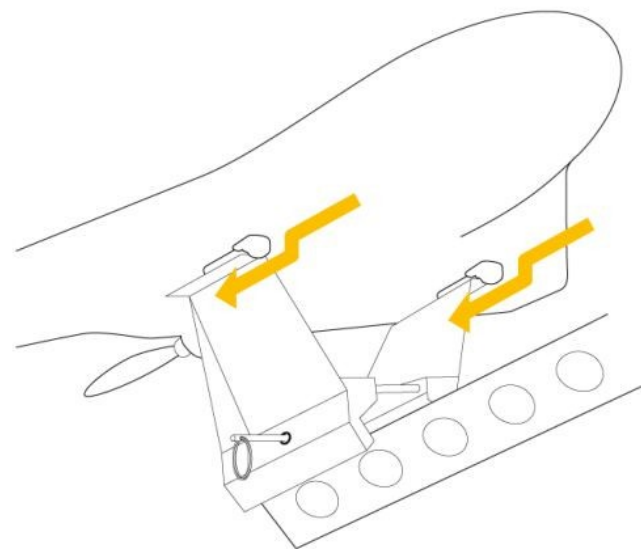


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Verify the rover position

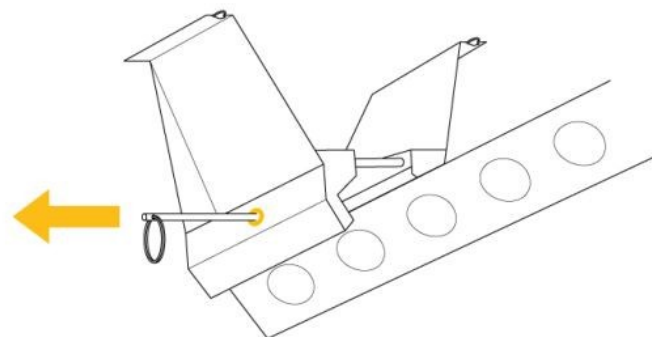
Make sure the rover is correctly positioned on the launch dock.



Flight checklist

Remove the safety pin

- Make sure that the launch zone is free from obstacles.
- To remove the safety pin, position yourself behind the launcher, reach carefully under the rover and then pull out the safety pin.



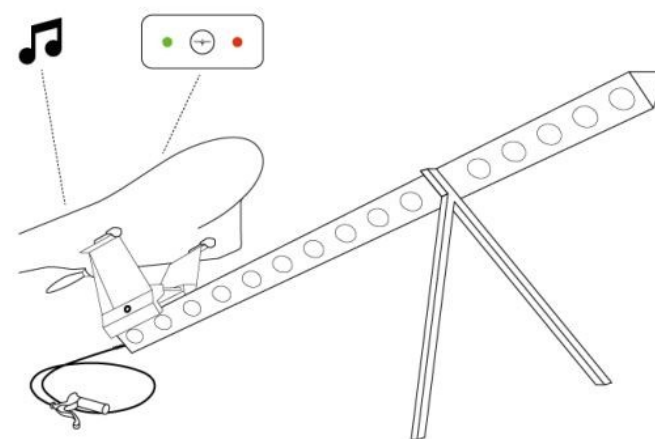
Flight checklist

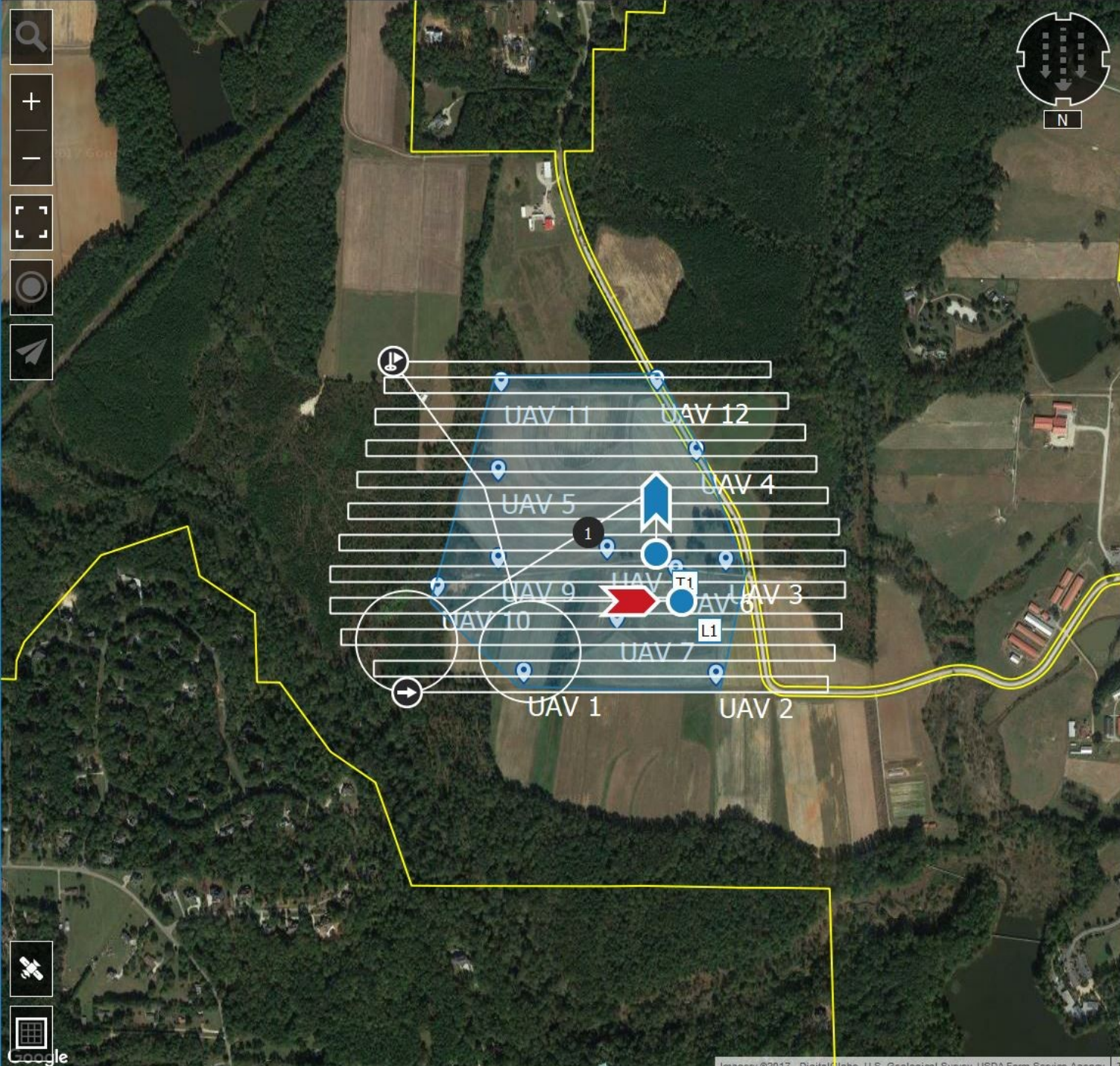
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Arm the system

Arm

- ☐ Drive unit is armed (sound)
- ☐ eBox is armed (steady LEDs)





Vertical toolbar with icons for layers, hexagon, location, list, paper plane, and download.

Flight 1 - 21 min

Flight 1

Bottom toolbar with icons for paper plane, document, share, play, and trash.