



Drones and building inspection

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Stirling City
HERITAGE TRUST



**TRADITIONAL
BUILDINGS**

**HEALTH
CHECK**



Developed and delivered by Stirling City Heritage Trust. The Traditional Buildings Health Check scheme operates in Stirling and Bridge of Allan.



A membership based service providing impartial and expert advice about the maintenance and repair of traditionally constructed buildings.



Focus on external building fabric such as masonry, rainwater gutters and pipes, roof coverings, chimneys and windows.



Buildings inspected are typically pre 1919 and include villas, cottages, tenements, churches, commercial premises, and public buildings.

The challenge of getting up there to inspect

Planning

- Safety when working at height
- Staff training and certification
- Permits and road closures
- Can be expensive

Equipment

- Purchase or hire
- Time consuming to set up
- Transport and storage
- Periodic testing and inspection





Mobile elevated work platforms



Towers and scaffolding



Windows & hatches



Rope access



Ladders

Benefits offered by multirotor drones

- Reduced risk
- Avoids work at height
- Relatively inexpensive
- Quick and easy to deploy
- Time saving
- Minimal disturbance
- High quality imaging
- Views of hard to reach areas
- Photogrammetry and mapping
- Thermal imagery and LiDAR



DJI Mavic 2 Pro - 907g - 20Mp camera - 4K video



Identification and analysis of building defects



Capture close up images of hard to reach areas



Who can fly drones and where

- The UK's aviation rules are regulated by the Civil Aviation Authority (CAA).
- It is against the law to fly a drone or model aircraft without having the required IDs.
- New drone regulations came into effect from 31 December 2020. These are designed to align with the European Aviation Safety Agency (EASA).
- Drones are now classified depending on weight and capabilities.
- Risk Assessments are now based on the proximity of flying to people and the level of risk involved.

What you need to fly legally

- **Flyer ID** – anyone flying a drone 250g or more needs to pass a test and get a flyer ID from the CAA. Each pilot needs their own flyer ID.
- **Operator ID** – is your registration number and must be labelled on your drone. If your drone has a camera (unless it is a toy) or weighs 250g or more then you need to register with the CAA.
- **Drone Code** – gives guidance on flying safely and legally. You must follow the rules and regulations whenever you go flying.
- **Training** – A2CofC or GVC certification may be required to operate closer to people and within congested areas.

UNITED KINGDOM
Unmanned Aircraft Systems
Remote Pilot Certificate of Competence

Flyer ID
GBR-RP-55KNX4C69FB9

First name: DAVID
Last name: LINDSAY
Expiry date: 10/02/2026

A2
OPEN
CATEGORY

UK Civil Aviation Authority

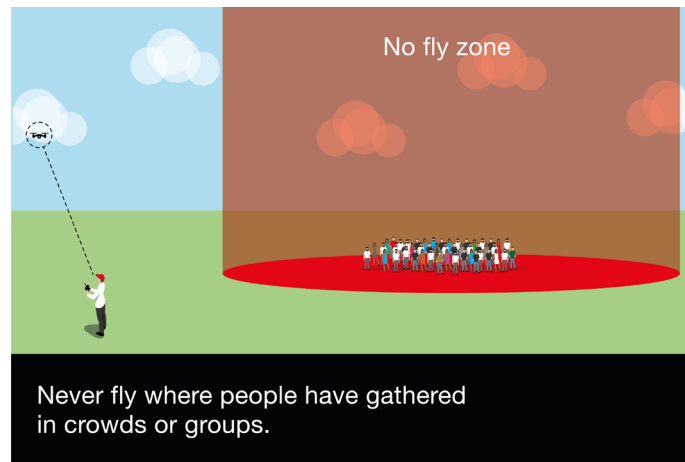
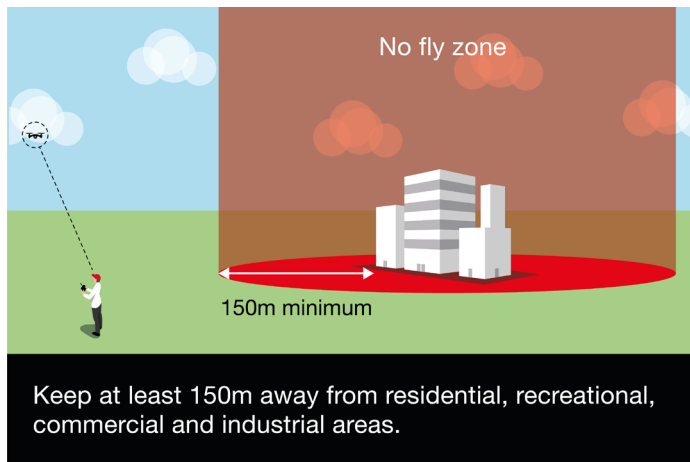
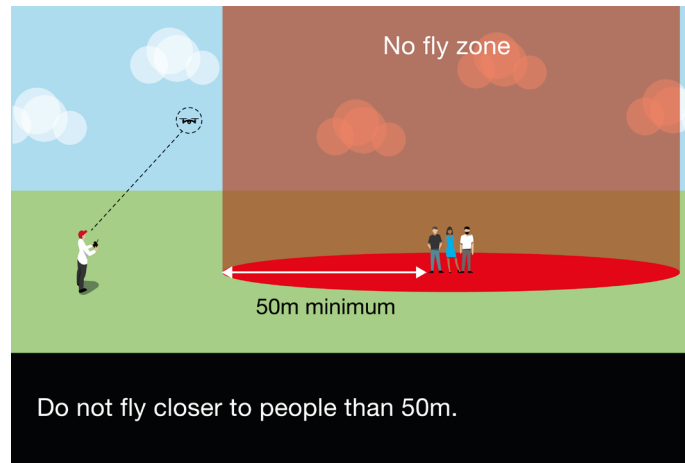
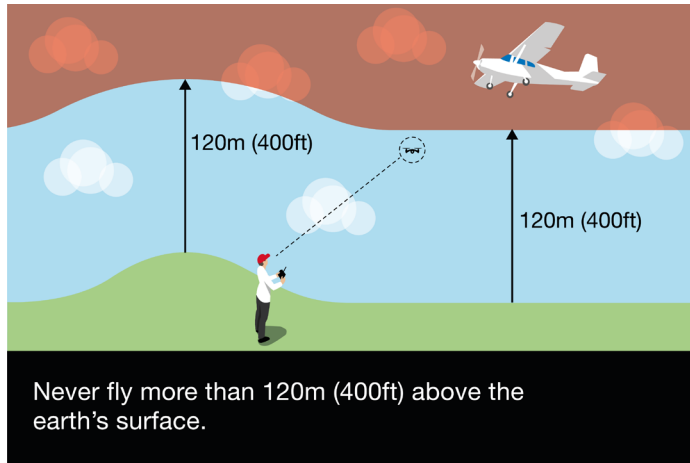
COPTRZ
COMMERCIAL DRONE EXPERTS

RAE: 2785

SCAN ME

register-drones.caa.co.uk

Where you can fly



- Never fly higher than 120m / 400ft.
- Always keep the drone in sight.
- Keep clear of airspace restrictions, including around aerodromes, unless you have permission to fly within them.
- Keep 50m away from uninvolved people, to avoid endangering them.
- In most cases, unless flying a drone that is less than 250g, you must keep at least 150 metres horizontally away from parks, industrial, residential and built-up areas.
- The new rules are divided into three categories: Open, Specific and Certified.

The Open Category

Basic set of regulations for flying unmanned aircraft within the UK. Operating within these limits will mean that you don't need an authorisation from the CAA to fly.

Divided into three subcategories.

- A1: Flying 'over' people
- A2: Flying 'close to' people
- A3: Flying 'far from' people

To fly in the A2 sub category the pilot needs the A2 Certificate of Competency (A2CofC).

The Specific Category

The Specific category covers operations that present a greater risk than that of the Open category, or where one or more elements of the operation fall outside the boundaries of the Open category.

Pilot needs the General Visual Line Of Site Certificate (GVC).

Can be used to apply to the CAA for an Operational Authorisation that that is valid for a year from issue.

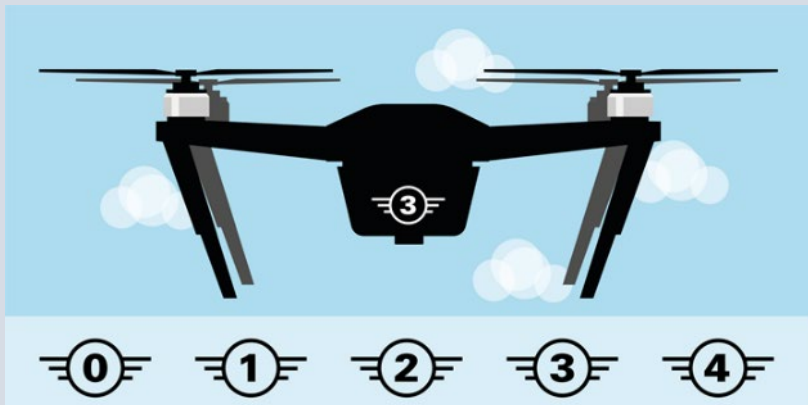
Training and examination is carried out by a Recognised Assessment Entity (RAE)

Flight operations

Currently there are no drones on the market that are certified under the new EU drone class scheme.

Currently, in the Open Category it is only possible to operate legacy drones close to people if they weigh less than 500g.

The Specific category may allow reduced distances from uninvolved people if the CAA approve an Operating Safety Case (OSC).



EU drone class marks



DJI Mini 2 (249g)



DJI Mavic 2 Pro (907g)

Thank you
for watching



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