



ProDroneWorx provides mapping, inspection and surveying services to the Construction, Asset Inspection, Engineering, Surveying, Environmental, Planning, Ecology and Architectural industries using aerial LiDAR and photogrammetry technology. We pride ourselves on our professionalism and commitment to improving safety, mitigating risk, improving operations and reducing operating costs for our clients through the use of technology.

Advantages of using drone technology:

- **Cost Savings:** Our services and solutions are more economical than traditional methods.
- **Time Savings:** Our services and solutions can be deployed much faster than traditional methods and the amount of time needed to carry out an operation is much less.
- **Unparalleled Access:** Drones can be used to inspect any section of the building/structure whereas this isn't the case using traditional methods e.g. valley of roof, slopes etc. without putting people at risk.
- **Improved Data Quality:** By providing enhanced field data we can significantly improve the quality of our client's business processes.
- **Accuracy:** Our 2D and 3D maps and models are highly accurate and proven down to approx. <5cm.
- **Risk Avoidance:** Having accurate and up to date field data helps reduce risk and errors.
- **Safety & Regulations:** Drones can provide access to areas that are deemed too difficult or too risky to send people into while also significantly reducing the risks associated with working at heights.

Services using drone technology

Asset Inspection

Surveying

Progress Monitoring

3D Modelling

Volume Measurement

Digital Surface/Terrain Models

Orthomosaics

Photography & Video

Thermal Imaging

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About Us

ProDroneWorx operates throughout the UK with 'Permission for Commercial Operations' from the CAA and are a CSCS card holder.



ProDroneWorx Service Offerings:

Asset Inspection

Whether it's inspecting an asset such as a building, industrial unit, bridge, solar farm etc. drones provide a safe, quick and cost effective way of inspecting the asset.

For assets to operate efficiently they need to be well maintained so that the risk of fault is either eliminated or minimised to prevent costly damage from occurring e.g. identifying weak structures, finding corrosion, structural damage or damage to a roof and its supporting structure.

3D Modelling

3D models (point cloud, textured model) are a great way to visualise an area of interest in a different way to standard images. These models provide a detailed level of depth and insights into the structure being assessed.

These models can be imported into BIM or CAD packages so that comparisons can be made with the design models.

Orthomosaics

We have the technology and capability required to take aerial imagery over a large area which allows all of the images to be merged to form a seamless mosaic in high resolution.

The resulting orthomosaic is geometrically the same as a conventional map which can be used to take direct measurements. The image can be imported into CAD or GIS for the placement of roads, buildings etc.

Surveying

Topographic surveys are an essential part of any land development project. Using drones to survey land or a site saves a substantial amount of time.

We can carry out surveys of large areas of land per day using LiDAR or photogrammetry and total station/GPS equipment. They are highly accurate and proven down to approx. 1-2cm in x,y,z co-ordinates when using ground control points (GCPs).

Volume Measurement

We can measure stockpiles on site or the extraction volumes for earthworks.

It's very challenging, costly and time consuming to quantify the exact amount of resources present in a specific area using traditional methods but this is not the case using our drones and specialised cameras.

Ground control points (GCPs) can be used for comparisons over time.

Photography & Video

Aerial drone images are a great way to capture the true magnificence of an object or building in a way that can't be achieved through on the ground photography. It's a completely new visual perspective that's now affordable compared to hiring a helicopter or plane to do the same job.

Using our advanced drone and imaging equipment we are able to capture photos and videos of company assets, construction sites, industrial units etc.

Progress Monitoring

Drones are the best way for companies to monitor work progress on a project. They provide project managers, contractors, architects and engineers with data to better track a project's progress, manage resources, reduce downtime, and keep projects on schedule and within budget.

Progress monitoring allows our clients to verify the 'as built' project status against design models using 2D and 3D data which can be created using LiDAR or photogrammetry.

Digital Surface/Terrain Models (DSM/DTM)

DSM measures the height values of the first surface on the ground i.e. buildings, vegetation etc. A DTM represents the bare ground surface without any buildings, vegetation etc.

These digital models can be used in a wide range of areas e.g. planning, visualisation, height analysis, sight lines etc. Contour lines can also be produced from either the DSM or DTM.

Thermal Imaging

Installing a thermal imaging camera on a drone offers a range of unique advantages over conventional methods for performing thermal surveys.

Thermal surveys are ideal for a wide range of applications, including: identification of mechanical failures, leak detection, Insulation assessments, building diagnostics, solar panel inspections, roofing etc.