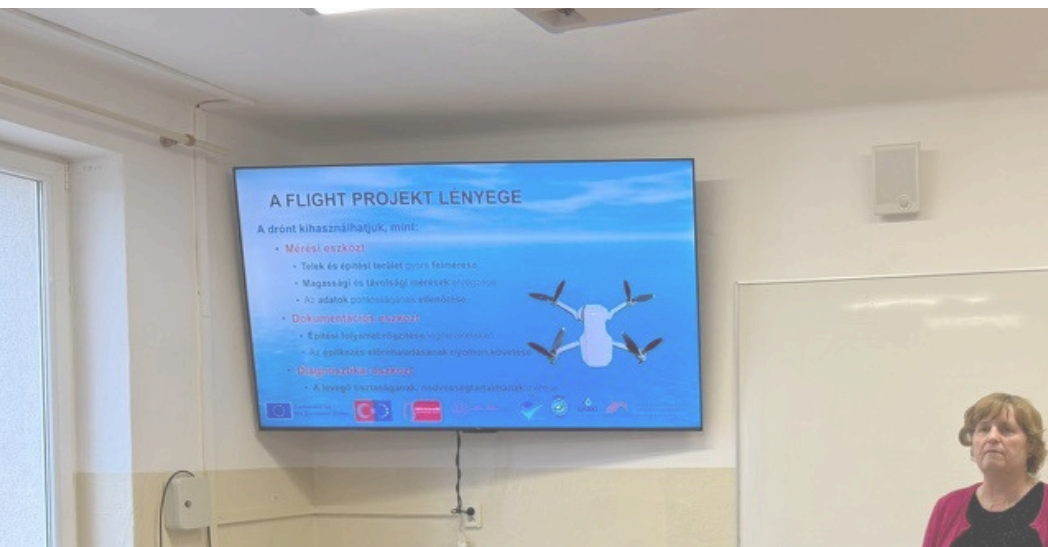




Teachers of vocational subjects from the Secondary Technical School of Civil Engineering in Hurbanovo shared their experience from the Erasmus+ project FLIGHT during a Local Replication Workshop. They presented practical ideas on how drones can be used in construction for documentation, measurement, safety, and sustainability.

The mobility participants — Mgr. Katarína Kučerová, Ing. Ildikó Horváthová, Ing. Adriana Eleková, and Ing. Tímea Bódogvá — highlighted the importance of bringing modern technologies into teaching to help students develop practical skills for their future careers.

Newsletter N° 5

Drone in Construction Practice: Measurement, Documentation, and Diagnostics

In construction, drones have proven useful in three main roles:

Measurement tool – for quick site surveying and checking the accuracy of data.

Documentation tool – for recording construction progress, comparing different stages, and inspecting the condition of a building from above.

Diagnostic tool – for collecting environmental data and evaluating it in relation to the operation or condition of a building.

The teachers also worked with specific technologies, such as the DJI Mini 4 Pro, equipped with a 4K camera and image stabilisation, which is suitable for visual inspections and documentation. They also used the school/experimental WP2 FLIGHT KIT drone, equipped with sensors for temperature, humidity, pressure,

VOC, PM2.5, and GPS, enabling measurements of environmental quality.

From Experience to Learning: What Was Created for Students

An important project output was the creation of learning activities that can be used both in the field and at school. These activities show students how drones can support roof inspections, construction process monitoring, site safety checks, and environmental quality measurements. Through these tasks, students learn to identify building defects, follow construction stages, understand health and safety risks, and collect and analyse sensor data from their surroundings. The activities help connect modern technologies with practical skills needed in the construction sector.



- 1. DJI Mini 4 Pro** (kereskedelmi drón)
- 4K kamera
 - 3 tengelyes gimbal



2. Custom Drone - WP2 FLIGHT KIT

Szenzorok:

- temperature, humidity, pressure, VOCs – BME680
- laser PM2.5 sensor2
- NEO-6M GPS



Rules and Safety as the Foundation

The teachers emphasised that the professional use of drones requires knowledge of rules and safety principles, including visual contact, flight limits, and restricted zones. This is also an important part of preparing students for real practice.

The FLIGHT project brought a new dimension to vocational education: technology is not used as an “effect”, but as a tool for developing skills increasingly important in modern construction. As highlighted in the presentations, a drone is not a toy — it is an educational and professional tool.

