World of Drones: First Steps in UAS

Grades 4–6 · Ages 9–12



An introduction to unmanned aircraft systems and modern STEM education: students learn how a quadcopter is built and why it flies, practise flying on a simulator and make their first flights with an educational mini drone under instructor supervision.

Age group:	Format:	Class size:
Grades 4–6 (ages 9–12)	**in person, after-school at the school**	**10–12 students**
Language:	Prior knowledge:	Outcome:
English	**none required**	**certificate of completion**

LEARNING OUTCOMES

- understand what UAS are, what types of drones exist and where they are used;
- know the parts of a quadcopter and how it flies; assemble a wooden model;
- control a drone on a simulator;
- follow safety rules and make first flights with a mini drone.

PROGRAMME CONTENT

Meet the drones	what UAS are, types of drones; assembling a quadcopter model
Structure and flight	motors, propellers, battery, flight controller; how lift works
Controls	radio controller, stick functions, simulator exercises
First flights	safety rules, pre-flight check, Tiny Whoop mini drone
Practice and uses	take-off, landing, basic operations; drones in daily life and future technology
Wrap-up	review, practical demonstration, certificates

SESSION STRUCTURE — 60 MINUTES

Introduction	New material	Practice	Wrap-up
topic, review	presentation, demonstration	assembly, simulator, flights	summary, feedback

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