FLIGHT DEMONSTRATOR - BLACKBIRD

A New Era of Aircraft Configuration

The BlackBird demonstrator was built on the knowledge gained from over 800 successful flights of CycloTech's first-generation flight demonstrator.

The demonstrator showcases the capabilities of the 7th generation CycloRotor, offering precise control, vertical take-off and landing, and maximum stability at different pitch angles. With a pitch angle of up to 30 degrees while hovering, the BlackBird demonstrates how CycloRotors are suitable for a wide range of applications.

The 360° thrust vector control enables the aircraft to brake and stop mid-air. The 2 CycloRotors in the longitudinal axis of the aircraft provide increased manoeuvrability and allow lateral flight without banking the aircraft.

After the project started in April 2024, backed by a grant from the EU and the State of Upper Austria the team completed the assembly of the BlackBird demonstrator within 10 months and proceeded with extensive ground testing. They ensured that all systems including battery, propulsion, flight controls, software, and avionics were functioning as expected and ready for flight testing.

Length [m] x Width [m]	4.9 x 2.3
MTOW [kg]	340
Rotors	6 x CR-60

April 2024 — **Project Start**

February 2025 — **Assembly Completed**

March 2025 — **Maiden Flight**

Co-funded by the European Union

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