

FlyHy – Hydrogen-powered drone with interchangeable carrier concept



In the FlyHy research project, a consortium of Thuringian companies and research institutions are developing a hydrogen-powered drone with an interchangeable carrier system, as well as range and flight time optimization for various measurements and work tasks.

Project title:

FlyHy – Hydrogen-powered drone with interchangeable carrier concept for different measurement and work applications

Subproject:

Development of a modular hydrogen tank system based on fiber composites

Project duration:

09/06/2021 – 06/30/2023

Subproject Manager:

Michael Ziller Dipl.-Ing (FH) (Engineering Degree)

Consortium:

- Bauhaus University Weimar
- edm aerotec GmbH
- IMG Electronic & Power Systems GmbH
- HySON – Institute for Applied Hydrogen Research Sonneberg GmbH
- IVK Engineering and Surveying Office Kramer GmbH

Project goal:

The aim of the consortium is to convert an available, electrically powered drone (AREA drone from the Technical University of Munich), to run on hydrogen.

Based on our knowledge from previous tank projects, we are contributing to the development of an exchangeable Type 4 hydrogen storage system, and are thus expanding our lightweight construction competencies to include the hydrogen storage sector.

*Photo captions:*

AREA-Drone © Technical University Munich
CFRP tank (version 3.1b): 12L storage volume at
350bar storage pressure (weight approx.
4.9kg)