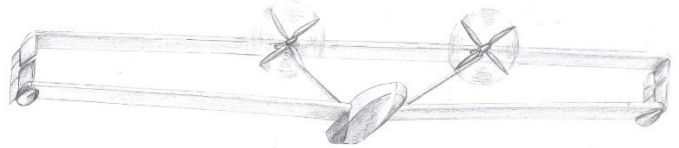


The AerGo by DSE Group 03

Imagine yourself on a sunny day thinking “Today I’d like to go fly”. With the AerGo, this possibility will be given to you, and aims to create an aircraft where anyone can experience the thrill of flying with minimal flight training.



The Netherlands is a country rich in water and excels in its network of bike paths. As we love our bikes, the idea to transport the aircraft behind your bike in a trailer, assemble it on spot and take-off from any waterway is what drives the design to unique features. In order to achieve this an ultra-light and -slow aircraft is designed which requires minimal flight training. To be able to use as many waterways as possible the aircraft is designed for a 200 m long waterway and a 12 m span. In order to create enough lift at low speeds, a bi-wing concept is chosen.

With an empty weight under 70 kg the aircraft is license free and this allows the owner to have the freedom to take off from anywhere, whenever weather permits. This ultralight requirement comes with a limit of 100 kg for the pilot weight, including gear. Considering you assemble and transport the aircraft yourself, the lighter the structure the better. With the skin on frame structure used for the hull and wing, the structural weight is below 25 kg. Using carbon fiber for the frame and ripstop nylon for the skin, this aircraft is most likely to be among the lightest manned aircraft in the world!

Cruising at low altitude a speed of 15 m/s is achieved by the electric propulsion system. The low cruise speed reduces the required power extending the flight time of the aircraft to 1 hour, more than double the flight time of our competitors. With two 1,5 m diameter popellers rotating at 850 rpm, the produced noise is less than 50 dB at 100 m distance. This is low enough to not cause any disturbance to the surrounding nature.

After reaching the desired take off point by bike, assembly of the aircraft shall be done on shore. The main body, consisting the hull and the middle parts of the wing stays on the trailer and the wings can be attached quick and easy. Furthermore the engines, propeller and avionics device can be detached and this all makes it possible to assemble this aircraft within one hour from trailer package to a ready to be launched stage. The trailer has a special built in system to launch and retrieve the assembled aircraft into and from the water safely. With a sales price of € 20,000 this single seater aircraft is accessible to a large part of population.