

Concept

Imagine you live in an area that is hard to reach by car, package delivery may be a problem there. Therefore, drones can be a perfect solution. We aim to design a drone that can make package delivery more environmentally friendly, flexible, efficient, and simple for private use. To make this possible, the drone needs to be safe enough to get the packages from the costumers their selves. This also requires a simple detaching system. In addition, this system needs to be as light as possible in order to maximize the reach.

For this concept two tradeoffs need to be made. First, between the weight and reach since the reach is maximized by the lowest weight. However, the drones can be used more often if they can deliver as much as possible different packages, included the ones with a high weight. Secondly, between the flexibility and stability. The stability may decrease when more packages sizes are allowed. Therefore, it could be possible to use several different drones with different grapping systems for different sizes.

Operate

Our drone concept would require users to follow a few set guidelines for packages. This guideline would set the required dimensions and maximum weight of the package. With these set, the user can simply place the package in an open space and then call a drone over using a phone app. The drone will later come over to the location, find the package, pick it up and deliver directly to the target location. For longer range deliveries outside the drone's reach, the drone can bring the package back to its home base where a delivery driver can send the package to another branch that is within range of the target location.

Manufacture

Notes