Further drone flights in Lugano

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Swiss Post, the EOC hospital group and drone manufacturer Matternet tested a drone service between two hospitals in Lugano for the first time in March 2017. Now the project is moving into the next test phase. As the the drone transport tests in the spring proved successful in terms of safety, practicality and reliability, actual laboratory samples or urgently needed medication will now be transported by drone between the two hospitals for the first time. The partners are aiming to operate regular drone transport for both hospitals from the summer of 2018.

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The new test flights between the “Ospedale Italiano” and the “Ospedale Civico” will start in October. Specialists from the drone manufacturer, Matternet, will closely oversee the flights on the ground. Test operations for the Lugano hospitals will be aligned as closely as possible to the fully-automated process which will be used in the future. For the first time, actual laboratory samples will be transported using a safety box which fulfils all transport regulations for biological substances. The drone will once again be loaded manually during the new round of test flights. In the future, however, a fully automated logistics station from Matternet will be used. This will enable hospital staff to load the drone without touching it and to dispatch it using the Matternet smartphone app.

First test flights completed successfully

Since the launch of the project at the end of March 2017 (see press release) around 100 autonomous test flights have been carried out between the two hospital locations. These tests have shown that the drone meets high standards of safety, practicality and reliability. The quadrocopter being deployed in Lugano is specialized in transporting light goods of up to two kilograms in weight. The drone has a diameter of 80 centimetres (excluding rotor blades), a maximum range of 20 kilometres and flies at an average speed of 72 km/h. For safety reasons, both the autopilot and other important sensors (e.g. altimeter, accelerometer and gyrometer) are installed in duplicate. On the basis of the experience gained from the test operation in March, the FLARM system was added to the drone, among other changes. The drone emits a signal using this traffic information and collision avoidance system to make the drone visible to other aircraft. But the drone also receives signals from other aircraft or drones and can react to these. Should all the electronics fail, a parachute will be triggered automatically. At the take-off and landing points, a landing pad is used which emits an infrared signal to enable the drone to land in precisely the right location.

Swiss Post plays pioneering role in drone logistics

Swiss Post is one of the first companies in the world to test autonomous drone logistics for commercial use. With this step, Swiss Post is once again demonstrating its pioneering role in drone logistics and its innovative strength. For Swiss Post, the use of drones in logistics over the last mile is of particular interest. The focus is on the transport of special items or the delivery of supplies to places cut off from the outside world after a storm. In the future, drones will complement traditional parcel delivery where required, but they will not replace it. In addition to drones, Swiss Post is also testing other autonomous systems such as delivery robots and intelligent shuttles.

The drones are part of a Swiss Post project which is also being launched under the early Label. This stands for innovations which Swiss Post tests and develops together with its customers. The early Label identifies products or services that are still in the development or test phase. This enables customers to gain access to the very latest developments from Swiss Post and actively help shape innovations by providing feedback. For more information, go to www.swisspost.ch/early.

Additional information on drone logistics at Swiss Post can be found at www.swisspost.ch/drones.

Source: Swiss Post