'Ambulance drone' prototype unveiled in Holland

October 28 2014

The ambulance drone arrives at the scene in no time, on-board defibrillator, real-time instructions provided by the emergency operator.

A Dutch-based student on Tuesday unveiled a prototype of an "ambulance drone", a flying defibrillator able to reach heart attack victims within precious life-saving minutes.

Developed by Belgian engineering graduate Alec Momont, it can fly at speeds of up to 100 kilometres per hour (60 miles per hour).

"Around 800,000 people suffer a cardiac arrest in the European Union every year and only 8.0 percent survive," Momont, 23, said at the TU Delft University.

"The main reason for this is the relatively long response time of emergency services of around 10 minutes, while brain death and fatalities occur with four to six minutes," he said in a statement.

"The ambulance drone can get a defibrillator to a patient within a 12 square kilometre (4.6 square miles) zone within a minute, reducing the chance of survival from 8 percent to 80 percent."

Painted in emergency services yellow and driven by six propellers, the drone can carry a four kilogramme load—in this case a defibrillator.

It tracks emergency mobile calls and uses the GPS to navigate.

Once at the scene, an operator, like a paramedic, can watch, talk and instruct those helping the victim by using an on-board camera connected to a control room via a livestream webcam.

The prototype has already attracted the interest of emergency services including that of Amsterdam, the Dutch daily Algemeen Dagblad said.

The Dutch Heart Foundation also applauded the idea, the newspaper added.

Momont however wants his drone to become a "flying medical toolbox" able to carry an oxygen mask to a person trapped in a fire or an insulin injection to a diabetes sufferer.

A woman gives a demonstration of an ambulance drone with a built in defibrillator at the campus of the Delft Technical University in Delft, Netherlands, on October 28, 2014

However, the drone is still in its infancy as far as developing its steering mechanism and legal issues regarding its use are concerned, Momont said.

He said he hopes to have an operational emergency drone network across the Netherlands in five years.

The drone is expected to cost around 15,000 euros ($19,000) each.

"I hope it will save hundreds of lives in the next five years," Momont said.

Graduated TU Delft student Alec Momont shows his design of an ambulance drone with a built in defibrillator in Delft, Netherlands, on October 28, 2014