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Category: Airborne

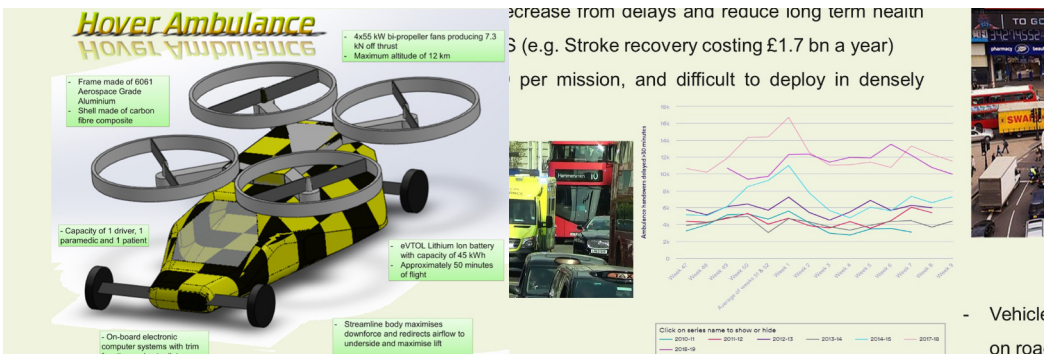
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# The Hover ambulance

Traffic is one of the biggest challenges for ambulances in the need of reaching their patients promptly, as even a few-minute delay can determine the survival chances of a patient. Thousands of ambulances are delayed each week, some by more than half an hour. The unpredictability of accidents, as well as congestion or construction on roads make it difficult for emergency services to deploy paramedics to their patient, thus reducing the chances of survival. Air ambulances (helicopters) have been used in cases where road access was impossible. However, because of the high operating costs, inability in extreme weather and lack of trained pilots, air ambulances are used only in the most extreme circumstances. In this project we propose a hover ambulance, which enables the operator to access the well-connected city roads as well as fly over the traffic and avoid congestion to reach patients promptly. An arrangement of the propulsion system to generate lift aerostatically is proposed, in the event the vehicle is stuck in between two other vehicles or does not have adequate distance to reach take-off speed. The hover ambulance is designed to maintain a stable flight and move in the air at the same speed as it would on the road. The report illustrates the development of a design that gives the best performing vehicle that meets the criteria of improving ambulance response times, to increase chances of survival, and decreasing costs of long-term health damage.



**Key Characteristics**  
 Response time • Ambulance • Accidents