Decision Making for Unmanned Aerial Vehicles

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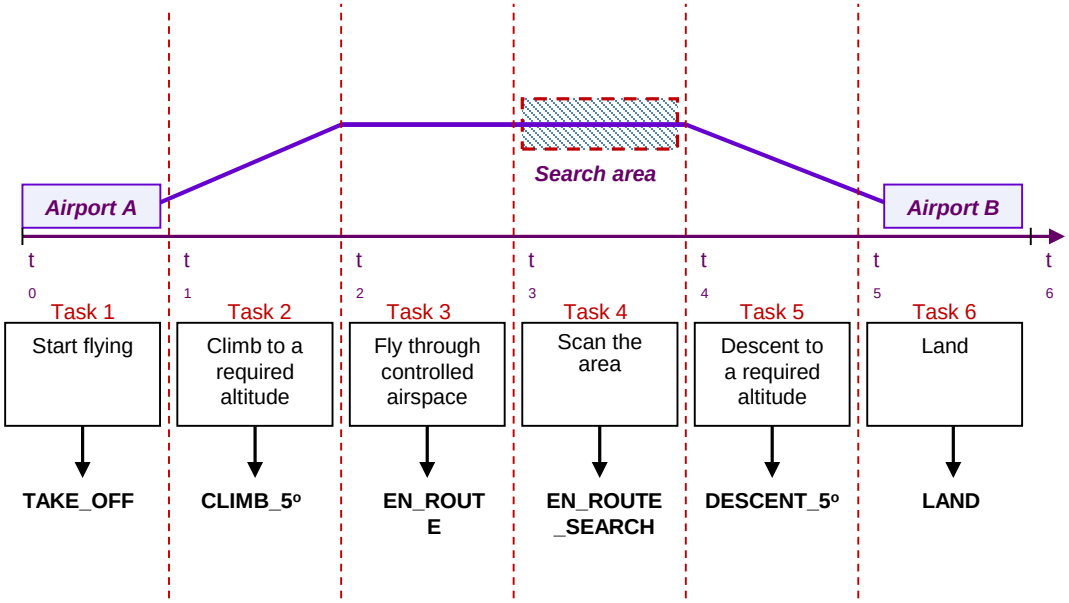
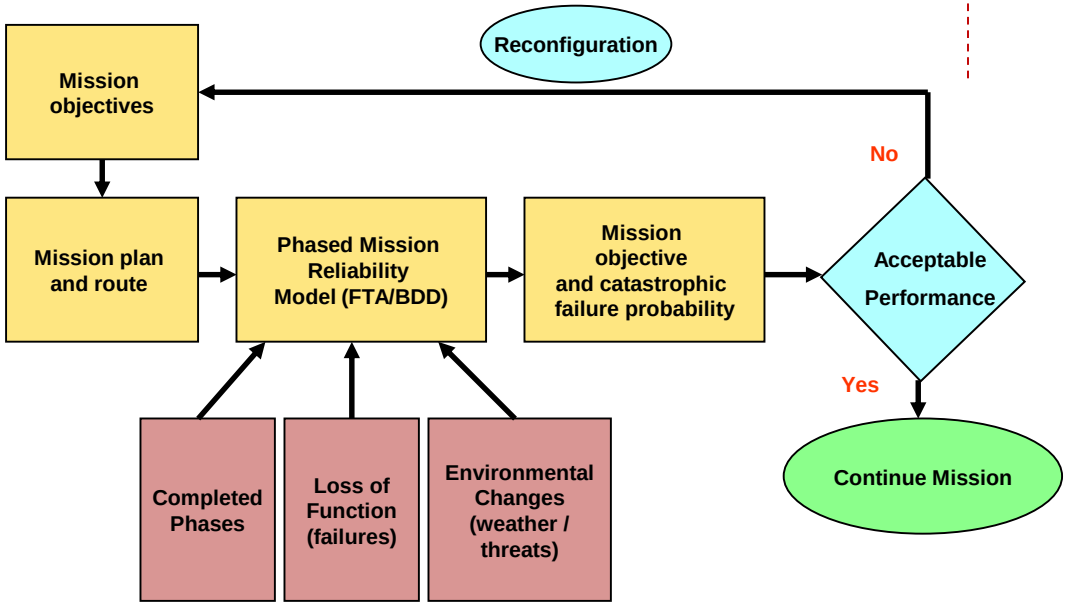
Background

Unmanned Aerial Vehicles (UAVs) can carry out their missions, such as fire fighting, search and rescue, surveillance, autonomously. Their decisions during a mission need to respond to failures, threats, changing environment and mission objectives.





Objective

(i) Develop a reliability-based technique to quantify UAV mission failure probability.

(ii) Take account of emerging changes throughout a mission.

(iii) Separate offline and online processes for real-time applications.