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(57) Abstract :

Embodiments of the present disclosure relates to a system (100) and method (300) for rotational release launching mechanism for aerial vehicles. The system (102) comprises a processor (202) coupled to a memory (204). The memory (204) stores processor-executable instructions. The processor (202) is configured to activate a control mechanism to initiate a launch sequence of the aerial vehicle. Next, the processor (202) is configured to rotate the aerial vehicle by applying a rotational release assembly while gradually increasing a launch speed to a desired velocity based on the activated control mechanism. Thereafter, the processor (202) is configured to release the aerial vehicle with precise timing and accuracy by applying the rotational release assembly. In the end, the processor (202) is configured to execute additional commands to optimize a flight trajectory and operational objectives of the released aerial vehicle.

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