

Use Case 1: Monitor Pre-Launch**Scenario:** Monitor Delivery System–Monitor Rocket**Scope:** LaunchSimulator**Level:** Flight Controller Goal**Primary Actor:** Flight Controller**Related Use Cases:** None**Stakeholders & Interests:**

- Flight Controller: Wants to monitor the Rocket during Pre-Launch for Pre-Launch Validity (continue, hold or abort)
- Engineer/Technicians: Wants to monitor the Rocket during Pre-Launch to apprise the Flight Controller to the condition of Pre-Launch
- Astronaut: Wants to monitor the Rocket during Pre-Launch

Pre-Conditions: The Countdown has started and in Pre-Launch**Post-Conditions:** The Countdown at 0, the System transitioned to Initiate Launch**Main Success Scenario:**

Flight Controller	System
	1. Reports the current velocity of the Rocket
	2. Requests the State of the Current Stage
	3. Returns the State of the Current Stage
	4. Repeats 2 & 3 for all Stages in the Rocket
	5. Repeats 1-4 for the duration of the Countdown
	6. For the Last Stage, reports the State of the Capsule
	7. Reports Countdown at 0
8. Initiate Launch	
	9. Transitions to Initiate Launch

Alternative Flows:

- 1a. During the entire Countdown, the System reports any velocity during Pre-Launch as anomalous. Flight Controller determines course of action (hold, abort or not abort).
- 3a. During the entire Countdown, If the System reports any anomalous data related to any of the Stages, then the Flight Controller determines the course of action (hold, abort or not abort). item[6a.]During the entire

Countdown, if the System reports any anomolous Capsule data, then the Flight Controller determines the course of action (hold, abort, not abort)

Special Requirements

- The System returns several data points for each Stage (which makes up the Stage State). This data needs documentation in related Use Case scenarios

Technology & Variations List:

- Different Rockets will have different number of Stages
- The Capsule differs based on mission

Frequency of Occurrence: Dependant upon frequency of Launch

Open Issues:

- Is this writeup truthfully neccessary?