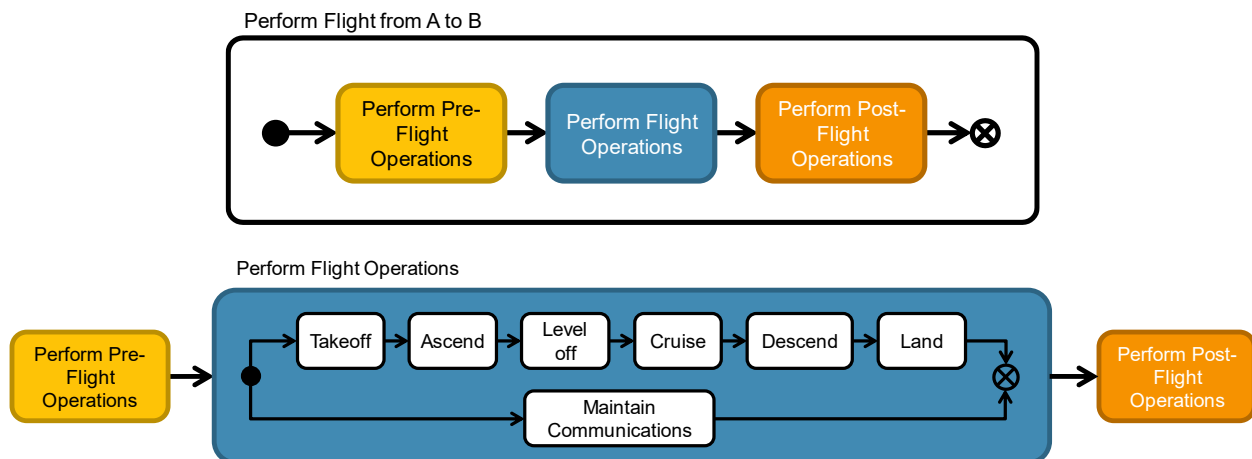


**Topic:** Functional Definition

**Problem:** Using your scenario(s) or use case(s) from previous exercises, generate a single system level functional flow diagram. Decompose at least one of the functions into another, more detailed functional flow diagram. Include relevant inputs and outputs for all functions.

**Pointers/Tips:**

- Functional flow diagrams are called Activity Diagrams in SysML.
- Inputs at the system level can be found on a system level context diagram.
- Inputs into a function at one level must all be represented or captured at the next level down.
- The simplest system level functional flow diagrams typically represent the mission phases: a pre-mission followed by a mission, followed by a post-mission function:



- I have decomposed a single sub-function using SysML for the ATM in the example below. Typically, you would decompose all sub-functions (see next page). Notice the consistency between the inputs and outputs from parent to child functions.
  - If you do not have access to an MBSE tool, feel free to practice using a diagramming tool such as PowerPoint, Visio, Lucidcharts, etc. Cameo EA was used to create the diagrams below.
- Submit to [support@learnse.com](mailto:support@learnse.com) if you'd like me to check it and provide feedback.

