# Command & Data Handling Requirements

The RCL-MOP1-CDH requirement states that the Command and Data Handling (CDH) subsystem will be capable of managing the operation of each subsystem of the spacecraft, as well as the communication of data between said subsystems. The requirement comes from the RCL-MOP1, which states the need for a method for verifying mission requirements on-orbit. This requirement is verified through analysis by constructing an accurate data budget with a positive margin, and through testing by performing command and day-in-the-life tests.

# Command & Data Handling Subsystem Overview

The Command and Data Handling (CDH) subsystem is responsible for making on-orbit decisions, processing health sensor data, and managing data during downlink. For CubeSats, there are several different flight computer and operating system commercial options available. Most notable is the CubeSat Kit, which includes a CubeSat standard motherboard with one of various processor daughterboards available and software tools for writing an operating system.

The spacecraft’s operating system is responsible for all software tasks built on to the spacecraft. Tasks can vary in complexity, ranging from activating deployables such as antennas or solar arrays to preparing and downlinking data to the ground.