List of equipment to be commissioned:

* ADE: Actuator Drive Electronics
* BEMA: Bogie Electro-Mechanical Assembly
  + Actuators
  + Sensors
* Motors:
  + Deployment motors
  + Turning motors
  + Drive motors
* LocCam
* NavCam
* PTU
* IMU
* Software:
  + Localization
    - WheelOdo
    - VisLoc
  + DEM generation
  + Navigation Map Generation
  + Path Planning

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| **ON LANDER** | | |
| **PRE-** | **TEST** | **POST-** |
| * Communications ok | Test LocCam | * Visual inspection of the camera feed |
|  |  |  |
| * Communications ok | Test NavCam | * Visual inspection of the camera feed |
|  |  |  |
| * Communications ok * ADE checks | Test PTU Electronics | * PTU stationary and run diagnostic of PTU motors, drives and sensors |
|  |  |  |
|  | DEPLOY PTU |  |
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| * Communications ok * ADE checks * Test NavCam * Test PTU Electronics | Test PTU | * Pan and Tilt commands correspond to encoder readings and cameras view |
|  |  |  |
| * Communications ok | Test IMU | * Orientation readings correspond with the lander’s readings |
|  |  |  |
| * Communications ok * Test LocCam * Test IMU | Test Localization | * With the rover stationary check the absence of drift in the position and orientation estimates. |
|  |  |  |
| * Communications ok * Test NavCam * Test PTU | Test DEM generation | * DEM corresponds to known models of the rover and lander |
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| ­ | ROVER DEPLOYMENT |  |
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| * Communications ok * ADE checks * BEMA checks * Test Localization | Test deployment | * Rover’s orientation is correct (according to lander structure and rover model (RSM)) |
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| **ON RAMPS** | | |
| **PRE-** | **TEST** | **POST-** |
| * Communications ok * ADE checks * BEMA checks * Test deployment * Test Localization | Test drive motors (very short traverse) | * Compare Localization with landing platform cameras and WheelOdo |

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| **ON TERRAIN** | | |
| **PRE-** | **TEST** | **POST-** |
|  |  |  |
| * Communications ok * ADE checks * BEMA checks * Test PTU | Test steering motors | * Check wheels turning with NavCam * Check wheels turning with lander cameras |
|  |  |  |
| * Communications ok * ADE checks * BEMA checks * Test NavCam * Test Localization * Test drive motors * Test turning motors | Test short point turn (90 deg both directions) | * Compare localization with landing platform cameras and NavCam |
|  |  |  |
| * Communications ok * ADE checks * BEMA checks * Test drive motors * Test turning motors * Test Localization | Test complete point turn (360 deg both directions) | * Check localization * Check landing platform cameras for visual inspection of the rover |
|  |  |  |
| * Communications ok * ADE checks * BEMA checks * Test drive motors * Test turning motors * Test Localization | Test Ackermann turn  (different curvatures up to 0.7 rad/m) | * Check localization * Compare with cameras of the landing platform |
|  |  |  |
| * Communications ok * ADE checks * BEMA checks * Test drive motors * Test turning motors * Test Localization | Test short traverse | * Check localization * Compare with cameras of the landing platform |
|  |  |  |
| * Communications ok * ADE checks * Test DEM generation | Test navigation map generation | * Manually identify an obstacle (also landing platform) and manually evaluate the navigation maps it generates |
|  |  |  |
| * Communications ok * Test navigation map generation | Test path planning | * Send a goal over the obstacle and evaluate the path generated |
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