

# X-37 Orbital Test Vehicle

The Prince of Darkness is coming! The comet 'Anduru' came from deep space into the Solar system. After shedding excessive speed in swing-by maneuvers around the major planets, it ended up in a highly elliptical orbit around Earth. An X-37 space plane is sent to investigate the suspicious comet.

The story is based on the book [Wherever Seeds May Fall](#) by Peter Cawdron.



## Key Commands

|            |   |
|------------|---|
| B ...      | Airbrake                                  |
| C ...      | Clear bullets (within an Orbiter session) |
| E ...      | Camera view cycle                         |
| G ...      | Gear                                      |
| Space ...  | Fire gun                                  |
| J ...      | Jettison payload                          |
| Ctrl-J ... | Jettison service module                   |
| K ...      | Open / close payload bay doors            |
| S ...      | Deploy / retract solar panels             |
| U ...      | Deploy / retract gun                      |
| Space ...  | Fire gun                                  |

## Scenario Keywords

|            |  |
|------------|--|
| MODE n ... | 0 = launch,<br>1 = orbit and landing                                   |
| DOOR       | Payload bay door open  |
| GUN nn ... | Armed with a gun in the payload bay;<br>nn = number of rounds, max. 64 |
| SM ...     | Service module attached  |
| SOLAR ...  | Solar panel swiveled out   |

| Scenarios                 | Description  |
|---------------------------|--|
| X-37 1-Launch to Anduru   | A strange object has moved into a highly elliptical Earth orbit. Launch the X37 on a FalconHeavy to investigate it. The <a href="#">FalconHeavy</a> addon is required for this scenario.   |
| X-37 2-Approach to Anduru | Approach carefully and investigate the comet Anduru.<br><br>After the reconnaissance mission turn retrograde and burn for a periapsis altitude of 55 km. Aerocapture during several passes through Earth atmosphere.   |
| X-37 3-Finals on KSC      | Approach the KSC spaceport. Use upward trim to adjust the flight path.   |
| X-37 Finals on Edwards    | Approach and land on Edwards AFB.  |
| X-37 Molniya launch       | Press [V] to launch into a 200 km x 600 km orbit with 63.4° inclination. Circularize to a 600 x 600 km parking orbit.<br><br>After a few orbits, burn over the South Atlantic to a Molniya orbit with an orbit time (T) of 43 046 sec and an apoapsis height of 39 750 km. |
| X-37 Payload Test         | Open the payload bay doors [K], deploy the solar panels [S] and jettison the 'Ion Sled' payload [J].   |

| Specifications  | X-37          | With Service Module |
|-----------------|---------------|---------------------|
| Length [m]      | 8.8           | 9.5                 |
| Wingspan [m]    | 4.6           |                     |
| Height [m]      | 2             |                     |
| Dry mass [kg]   | 4000          | 4500                |
| Fuel Mass [kg]  | 1500          | 2000                |
| ISP [m/s]       | 3 200 (x 1.1) |                     |
| Main thrust [N] | 14 700        |                     |

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The service module was made by BrianJ.

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