Piloting And Travel

Piloting

Ships have 4 ways to travel around within a system or sector (also known as a Hex):

- **Standard**, which has good agility for dog fighting and docking
- **Boosting**, which drains shields into engines to provide a rapid speed increase
- **Travel Mode**, which has modest acceleration and lowers agility but offers sustained very high speeds
- **Mixed Mode**, which is a manual way to use the booster to reach high Travel Mode speeds quickly

Spacesuits may be equipped with a modest form of a booster.

Boosting

Ships can boost giving them a temporary burst of speed enabling them to escape the enemy firing range or to manoeuvre into blind spots. While boosting, the shields of the ship are drained meaning that persistent use can leave the ship vulnerable to hull damage. It is not possible to use weapons while boosting but on the other hand, it is very difficult for other ships to knock down the shields a boosting ship enough to prevent it boosting.

Travel Mode

Travel Mode is the most efficient way to move between distant objects within the Hex of a system or sector. The choice of Engines determines the charge time and maximum speed of Travel Mode. **Travel Drives** have the highest Travel Mode top speed and acceleration but need to charge for 3 seconds before those strengths can be utilised. **Combat Drives** on the other hand have lower Travel Mode top speeds and acceleration but do not need to charge-up before starting. **All-Round Drives** offer a compromise between the two extremes.

Whilst moving in Travel Mode, the ship will steer like a brick if used by medium or larger sized ships but it is possible to reach speeds of several thousand m/s. It comes with a vulnerability though as receiving weapon fire overloads the drive, allowing ships to be interdicted and/or prevented from activating Travel Mode for 5 seconds (see **Mixed Mode** for ways to counter those situations). As it is possible to still shoot while moving in Travel Mode it is possible for the player to engage targets using Travel Mode (or are boosting) to slow them down to allow other ships to catch up.

Mixed Mode

Although not a mode which can be activated it is possible to utilise **Boosting** to accelerate into **Travel Mode**. With a **Travel Drive** active it is possible to Boost *while* Travel Mode charges up to reach high Travel Mode speed quickly. Whereas with a **Combat Drive** we can Boost *before* activating Travel Mode to reach high Travel Mode speed quickly. Ships that are out of shield are unable to perform Boost+flee+Travel Mode jousting.

Actions that are difficult when attempted while steering the ship

The 'Pause' key can be configured in the Controls/General menu. It allows us to access in-game menus while the game is paused.

Autopilot

Flies the player ship to the guidance marker. Autopilot can be toggled under the Ship Interactions Menu or by hotkey (Shift+A).

Flight Assist OFF mode

Thanks to the "flight assist computer", the normal behaviour of all ships in X4: Foundations, behave very much like planes in an atmosphere. This flight assist is constantly correcting the ships path. For advanced gameplay and maneuvers however, you can turn flight assist OFF by pressing the mappable hotkey (CTRL SPACE by default). The most notable effect of this, is that your ship will continue to fly in its current direction after turning around. You can basically fly backwards at very high speeds.

Flight assist mode is also turned off temporarily when coming out of travel drive.

Docking

When the player ship is within 5km of a friendly dockable ship or station and Dock Permission is requested (Shift+D), a trail of green landing lights will appear guiding the player to a docking pad. As the playership approaches the allocated landing pad, the HUD will indicate which it is with a hologram of the playership above it. Helpfully, the holographic ship will be facing in the direction that the playership should face as they land.

When closer-still, the HUD displays a 4-part alignment indicator to illustrate the location and orientation of the playership relative to the pad. The aim is to position the ship so that all four elements of the docking screen are green to land the ship. The HUD elements of this overall process for approaching and landing are illustrated on the How to dock your ship page. Once landed, the Ship Interactions Menu can be used to trade or Get Up and explore the station platforms.

Going For A Spacewalk

While flying through space it is possible to use the Get Up command of the Ship Interactions Menu (Control+D) to leave the pilot seat and explore the ship if the player is not already playing passenger. Interact with the **Use Transporter Room** panel at the back of the ship (insert picture) and select **"Use Space Suit"** to go for a space walk. Just remember to park a ship nearby to go back to. To re-enter your ship, request docking permission (Shift+D) in order to get open the airlock you'll need to manoeuvre into.
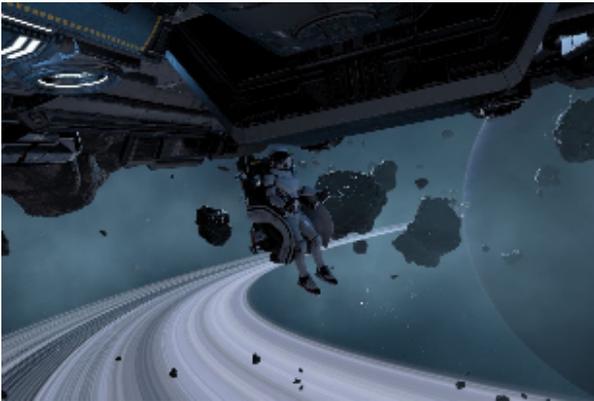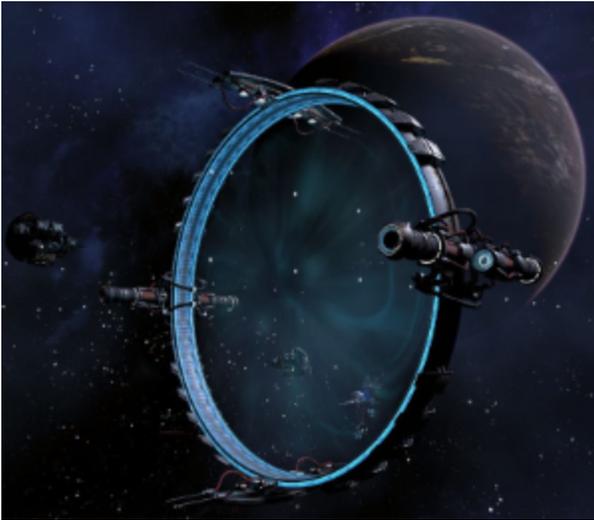

Highways

Populated sectors have constructed highways to make travelling around the sector faster. Highway lanes have gates at their start and end and only flow in one direction. When a ship flies into a highway lane at any point of the route it will be instantly rotated and accelerated to high speeds along the route of the highway. To exit a highway press the Backspace hotkey or strafe up/down to leave the lane. Strafing into the sides of a highway lane will slow the ship down allowing for more controlled exits. The route a highway takes can be seen using the Map. The positions of highways do not vary with different game starts.

# Superhighways, Orbital Accelerators, Jump Gates And Anomalies

The sector, or Hex, the player starts in may go on for vast distances in each direction but it is just one of many. To travel to other sectors and systems requires ship to fly through a **Superhighway**, **Orbital Accelerator**, **Jump Gate** or **Anomaly**. **Superhighways** are used to travel between nearby sectors within the same system and have unidirectional entrances and exits. The diameter of **Superhighway** gates means that care must be taken when flying larger ships though them. **Orbital Accelerators** and **Jump Gates** are wide bidirectional gates linking sectors together allowing for the rapid traversal of multiple ships at once.

Anomalies are one way wormholes connecting distant sectors and do not show up on the map. **Anomalies** have an anti-gravitational field around them preventing slow moving ships from entry, meaning they need to be approached at high speed using Boost or Travel Mode. Be warned that using anomalies may leave the ship deep in hostile territory and may require an alternative route to be found back to known space.
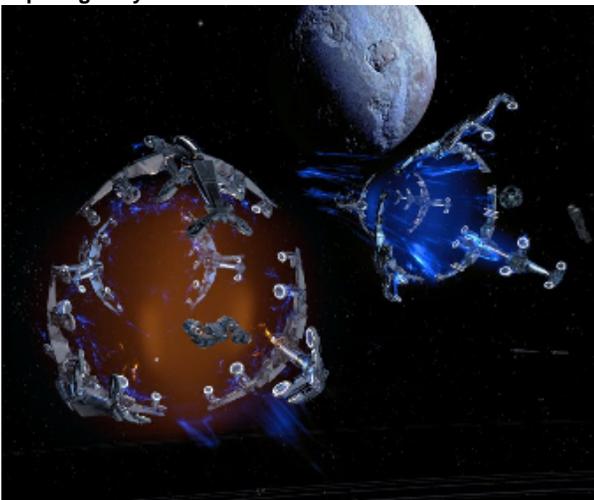
Jump gate:

Orbital Accelerator:
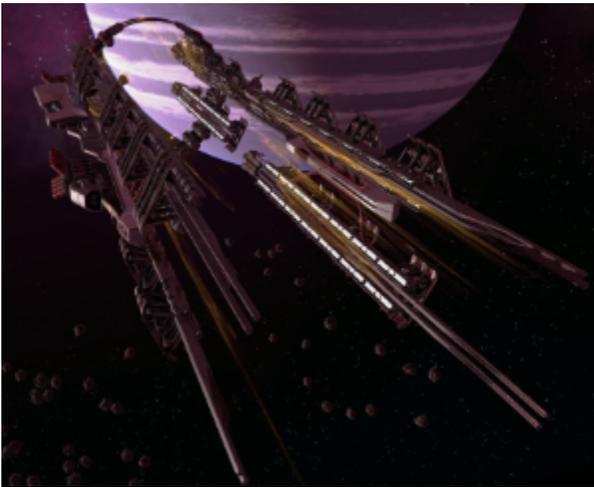
Superhighway:

Navigational Hazards And Minefields

Not all of space is empty and safe, some sectors are littered with natural hazards or the remnants of past conflicts. Vast Electromagnetic Storms will tear through unshielded ships while fields of Radioactive Asteroids will cause constant damage to both shields and hull. Dense Asteroid and Wreckage fields provide plenty of obstacles to collide into when traveling at high speeds while some sectors will be littered with minefields where one wrong move could destroy a ship.