

The Monty Python Maneuver

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This is probably the most famous battle tactic in the Escape Velocity series. It’s quite popular because it’s both easy, and effective. It’s also reviled, as it deeply undermines the games’ balance. This writeup is a discussion of the Monty Python Maneuver, what causes it to exist and to be a problem in the existing EV games, and some different ways it will be addressed in Orion Skies.

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What the Monty Python Maneuver Is

The Monty Python Maneuver consists of firing at an enemy ship while running away from it, and managing your speed to keep just far-enough away that the enemy ship can’t hit you back. The AI will just continue chasing you while getting shot until it’s destroyed, without ever having a chance to fight back. This tactic allows you to destroy large and powerful ships without even getting hit, even in your starting Shuttle!

The maneuver is named after the knights in *Monty Python and the Holy Grail*, who often comically run away from their enemies.



Why It’s an Issue

The Monty Python Maneuver causes two types of problems:

1. It enables wimpy player ships to defeat powerful adversaries, which throws off the game’s balance and reduces incentives for the player to work towards more expensive ships.
2. It makes combat simplistic and uninteresting for the player.

These problems are exacerbated by the Monty Python's extreme effectiveness, which powerfully incentivizes players to use it even if they dislike it.

Different Forms of It

There are a few different versions of the Monty Python Maneuver:

Classic Monty Python

Originally in EV Classic, the speed of the projectiles coming out of your cannons wasn't based on your ship's speed -- so if you were moving, you literally had extra range shooting backwards, and reduced range shooting forwards. This gave you a huge range boost vs any ship chasing you. It made the Monty Python Maneuver incredibly easy and intuitive, and is why it became so popular in the first place.

Later, the game engine was updated so that the shots take your ship's speed into account, and you have the same range shooting forwards vs backwards. Even with the update, the Monty Python Maneuver is still possible, especially if you have longer-ranged guns than the enemy ship. If your guns are the same range, you can sometimes pull it off because the AI doesn't always shoot at the absolute maximum possible distance.

In EV Nova, the AI has been updated so that it tries to counteract the Monty Python Maneuver -- if it notices that it's chasing you but you're persistently out of range, it'll stop in place and wait until you turn around and start to approach it, at which point it resumes the chase as usual. This makes the basic version of the Monty Python Maneuver impossible, but you can still pull off a modified form by moving just slightly towards the AI when it stops, and then resuming the maneuver as soon as it starts chasing you again. By going back-and-forth with the AI, you can keep your range. This method functions essentially the same as the base Monty Python Maneuver, but requires more work on the part of the player.

“Missile Monty Python”

Another combat tactic that is similar to the classic Monty Python Maneuver is the “Missile Monty Python”. In this version, the player arms their ship with as many missiles as possible, keeps a long distance from enemy ships, and shoots them with missiles from far away until they are destroyed. If you have enough missiles, you can wipe out any ship/fleet in the game.

This is a bit less egregious than the Classic Monty Python, because:

- A. the AI isn't so obviously being manipulated; and
- B. the player has to spend money on the missiles

However, it actually involves even less interaction and maneuvering than the Classic Monty Python, due to the player's distance from any threat, so the player's experience of combat is even less exciting.

“Railgun Monty Python”

EV Nova introduced a new type of weapon, which enabled a new form of the Monty Python Maneuver: railguns. Railguns have extremely long range and no ammunition limit. The Railgun Monty Python involves putting a couple of railguns on a small, fast ship, and then keeping your distance while railgunning the enemy ship to death.

The AI ships in Nova often have railguns of their own, and will shoot back at you -- but because the railgun shots are slow-moving and they have to cover long distances, there is plenty of time to easily dodge them before they hit you. Meanwhile, the AI doesn't dodge your railgun shots, so you can hit them with impunity.

The Railgun Monty Python is especially problematic for Nova's balance because it is highly effective on the Valkyrie and the Starbridge, which are both available early in the game, and it enables either of those ships to wipe out entire endgame fleets singlehandedly; once you get an early Valkyrie/Starbridge, there is no need to ever upgrade to a more powerful ship.

Solutions:

The Monty Python Maneuver essentially arises from two classes of weapons -- infinite-ammo guns, and long-range missiles. Solutions will need to exist for both categories.

Managing Guns' Range

As long as the player can get guns that outrange the guns on a slower AI ship, the player will be able to Monty Python against that ship. To prevent this, the guns' ranges can be carefully managed.

In EVO: Expanded, I took a brute-force approach and made all guns have the same range. The Nova AI wasn't quite as proactive as it could have been about shooting at maximum range, so even with that solution the Monty Python was still possible, although difficult and time-consuming. At that point, other, easier maneuvers became about as effective, and the Monty Python Maneuver wasn't particularly an issue.

In Orion Skies, I'll go for a more nuanced approach. There will be different sizes of weapons, and larger weapons will tend to have longer range than smaller ones -- so large, slow ships will generally have longer range than smaller, faster ships. Also, similarly to Override, there will be different types of cannons to choose from, and they will have different ranges -- so I'll make sure that slower ships always have at least 1 of the long-range gun type.

As far as railguns or other extremely long-ranged cannons, I think they are functionally more similar to missiles than to basic guns; I think they always need to have ammunition limits of some kind, or else they'll inevitably enable the Monty Python Maneuver.

Managing Missiles' Ammo Capacity

In EVO: Expanded, I implemented ammunition limits to the missiles, to manage how much damage any given ship can do with them. I carefully balanced it so that any given ship can "punch up" a bit and use missiles to destroy a somewhat larger ship, but fast ships can't carry enough missiles to wipe out entire enemy fleets from a distance.

I also balanced it so that close-range rockets can put out more damage than an equivalent quantity of missiles -- so the player has some incentive to go with close-in fighting.

I think that type of ammo-limiting system works really well, and I plan to use a similar approach in Orion Skies.

Another possible approach would be making point-defense systems commonplace, especially on slower ships. I'll need to experiment with this idea in-game before I can decide how promising it is.