Triple Threat Documentation

By Richard Hardy

Level Basics:

Map Title: Triple Threat
Map Type: Capture the Flag
Player Count: 4v4
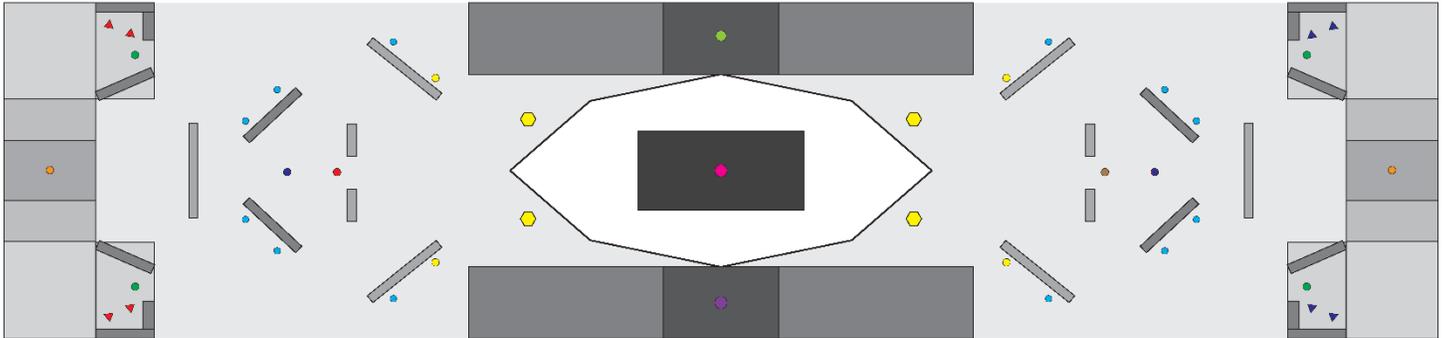**Author:** Richard Hardy

Intent

The intent of Triple Threat is to create a capture the flag map for unreal tournament that centralizes player around three platforms, found in the middle of the map. Figure one below shows the first mock up and inspiration for the level.

Figure 1. A block layout of the inspiration from class

Each team will spawn in one half of the map, in each of the corners. From there, the players will have the option to take the sniper in the back, or head forward toward their own flag. From the flag, the players can either take the jump pad to the middle platform or take the ramps onto the side platforms. Both teams with must plan and execute coordinated pushes to make successful pushes onto each flag. There are tactical cover spots located on each half to be used as points that teams can use to successfully defend or attempt a capture of a flag.
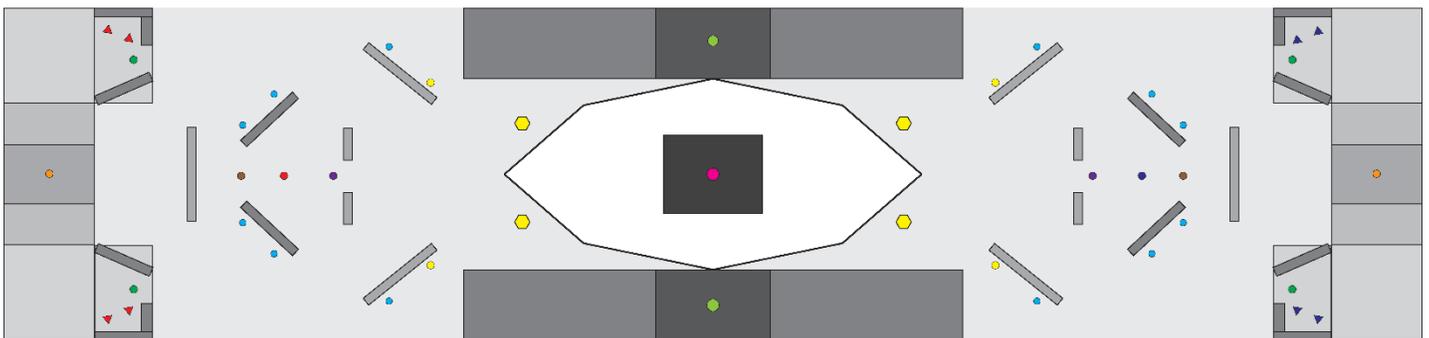
Triple Threat - Map Layout

Key

▲ Red Team Spawn	● Medium Health	● Rocket Launcher	⬡ Jump Pad to Middle Platform
▲ Blue Team Spawn	● Small Armor	● Grenade Launcher	
● Link Gun Spawn	● Blue Flag	● Shock Rifle	Elevation is based on white to black (Black is highest. White is empty void)
● Sniper Spawn	● Red Flag	● Flak Cannon	

Figure 2. Intended map layout before play testing

Triple Threat - Map Layout

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Figure 3. New map layout after play testing

Player Paths

        This section will show the paths the players can take to approach different weapons or the opposing team's flag. This will be shown from the perspective of the blue team for clarity but can be applied to the red team symmetrically, as there are no advantages for being either team.

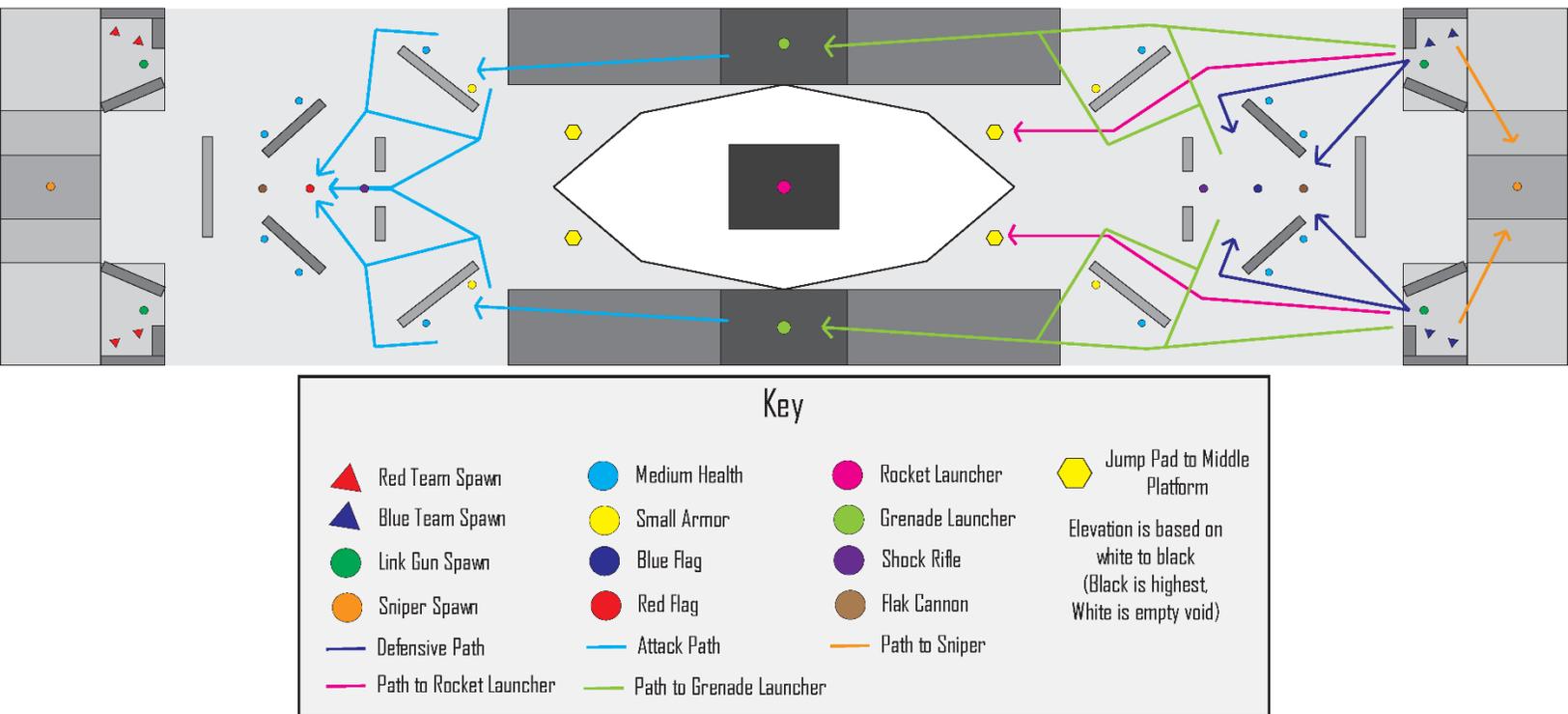# Triple Threat - Path Layout

Figure 4. Optimal path layouts for the blue team.

        As shown above, the player can choose multiple paths depending on what they plan to do. If they are going for a more defensive type playstyle, they can follow the dark blue path and stand at a defensive post, or they can follow the orange path and take the sniper rifle and assist the team from a long range. If they want to contest the middle ground and fight for the rocket launcher, the player can take the pink path and use the jump pads to access the platform. If the player has the desire to make a push for the flag, they can follow the grenade launcher path up the ramp, and then proceed to take one of the multiple attack paths outlined in light blue. To return the flag, the player can backtrack one of the multiple attack paths, follow the grenade launcher path back to their flag and capture it. Overall, the level's design allows for multiple approaches upon either flag.

Unreal Map Layout

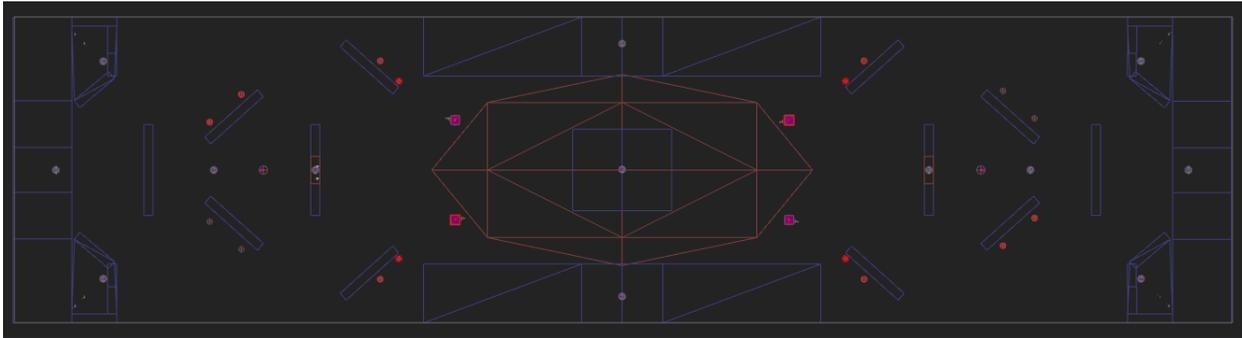Pictured below are views of the entire map in engine (post-playtesting)

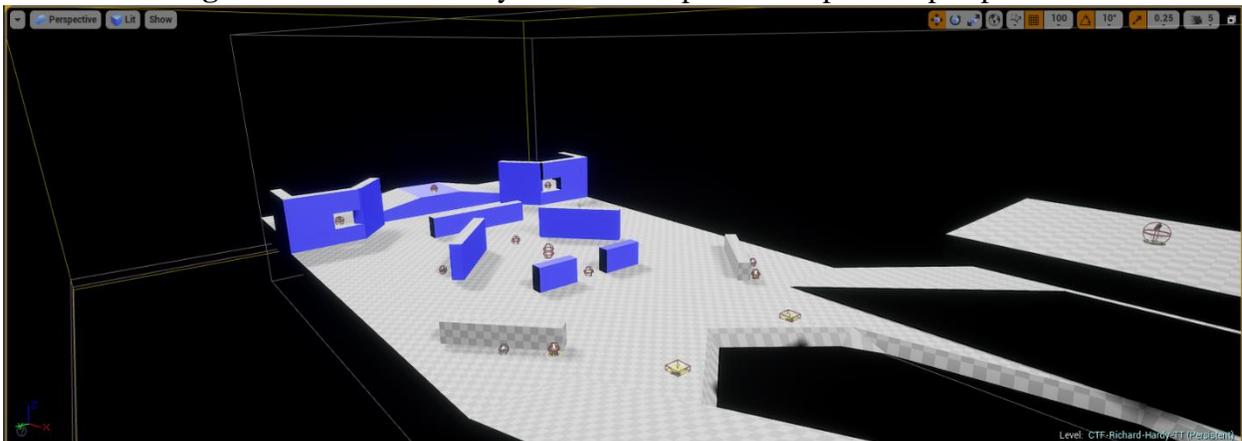**Figure 5.** A wireframe layout of the map from a top-down perspective

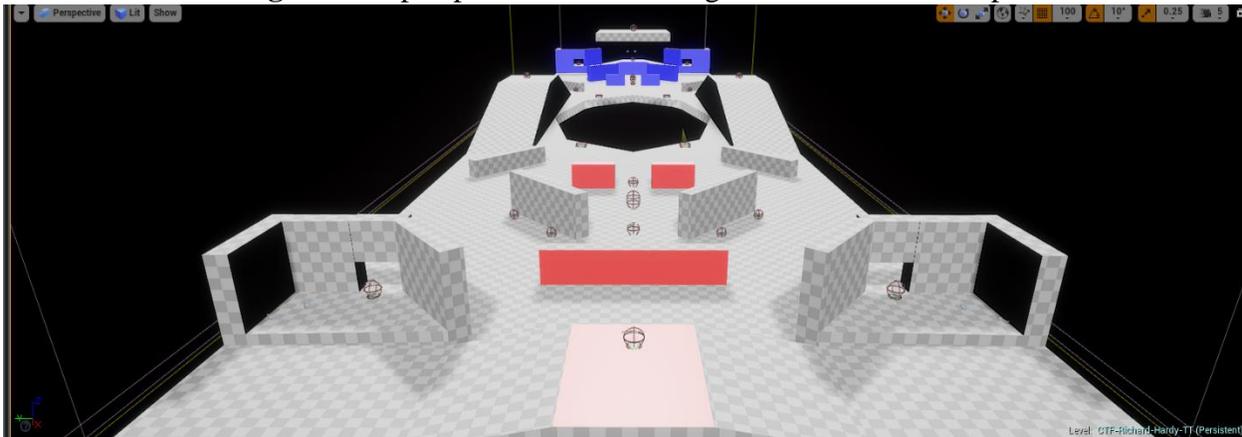**Figure 6.** A perspective view looking at one half of the map

Figure 7. A perspective view looking from the red team's spawn
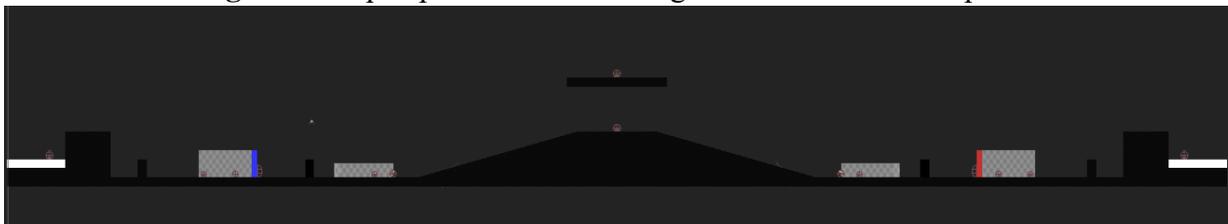

Figure 8. A lit view from one side of the map to show off heights of each wall and platform.

Intent and Playtest Analysis
Figures 2-8 can be used as visual references

When I first designed the map, I based the design off the initial prototype level that Robbie Meech, Cedric Brownewell and I created in class (which is seen in figure one on the first page). Using that as a starting point, I decided to expand the map to become much longer and added extra barriers for protection around the flag areas. I also decided to make the entire middle of the map a hole to endless void, making the jump pads to the middle platform and the side ramps the primary points of attack. I put health and armor on the barriers closest to the ramps to encourage teams to make pushes towards the enemy side, and reward them for using the cover. The rocket launcher at in the middle platform was meant to be the most rewarding weapon, as it allows a high vantage point to lock on and target enemies. To counter the rockets, I added snipers in the back of each team's side to provide cover fire and engage in far-range support for the team. The side ramps in the middle contained a shock rifle and a grenade launcher, both of which could be used to clear out the area around the enemy's flag and make a coordinated push.

I decided to playtest my level in the labs with a handful of designers and bots to see how well my level would hold up when played. After playing a few rounds on my level, it was clear that my level needed a few tweaks to become more fun to play. The flak cannon I placed in front of the flag wasn't used as often as I intended it to be, so it was suggested that is was moved behind the flag so that it would be a more appealing for defenders to use. Another complaint was that the link gun, sniper and flak cannons were the only weapons available for either team on their sides, and that they would like at least one more weapon available for them. To account for this, I added a shock rifle right in front of either flag, and turned the shock rifle on the side ramp into a grenade launcher. By doing this, the shock rifle allows for another counter to the rocket launcher (given the opposing team stays on the middle platform). Finally, the last suggestion was to either shorten or lower the middle platform, as it provided too much cover for players with the rocket launcher. I took the first of the two suggestions and shortened the length of the middle platform to give the teams more power to counter the rocket launcher on the middle platform. By adding these changes, the level is balanced further and as a result, more enjoyable.
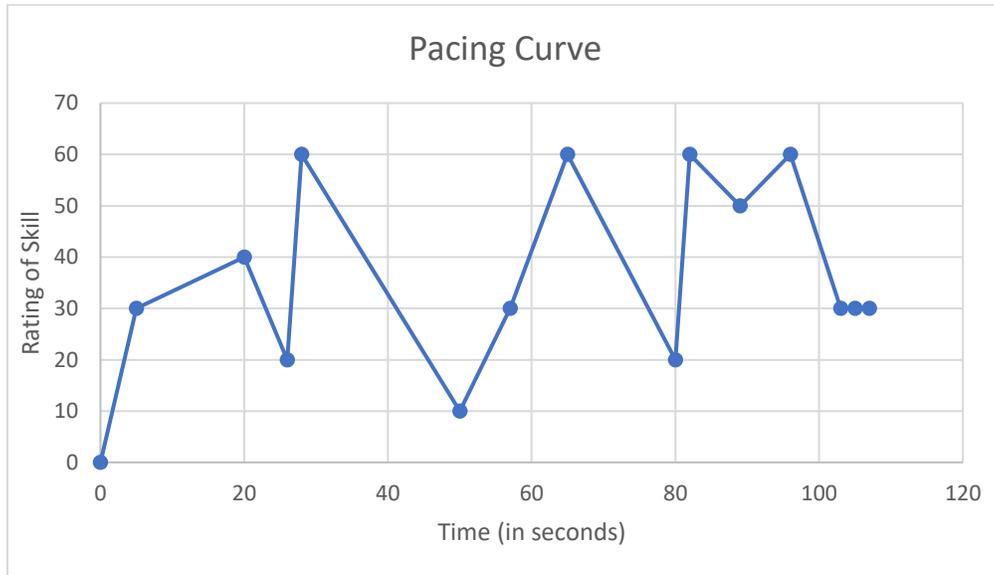
Pacing and Tension Curves

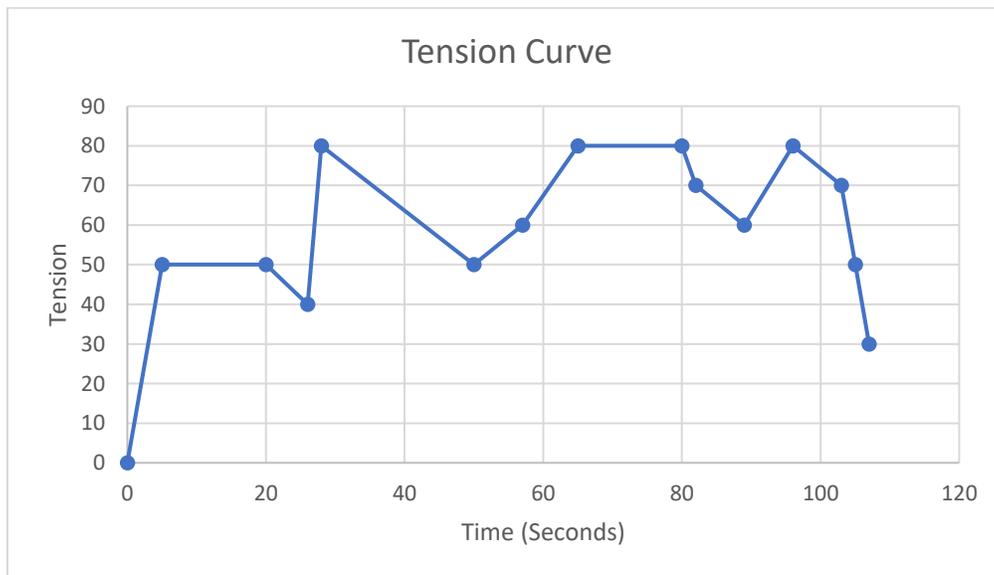**Figure 9.** Pacing Curve of a flawless flag run

Figure 10. Tension Curve of a flawless flag run

Critical Path challenge/tension ratings			
Challenge name/location on critical path	Rating of Skill required to overcome Obstacle	Timestamp (in seconds)	Tension
Player Spawn	0	0	0
Possible Flag Contention at Base	30	5	50
Possible contention at final barrier	40	20	50
Jump pad to middle platform	20	26	40
Duel for Rocket Launcher	60	28	80
Drop to side ramp	10	50	50
Charge to first enemy barrier	30	57	60
Flag contention	60	65	80
Grabbing the flag	20	80	80
Running to cover	60	82	70
Running up the side ramp	50	89	60
Possible contention at side ramp	60	96	80
Running to bottom of ramp	30	103	70
Running to last set of cover	30	105	50
Returning flag	30	107	30

Figure 11. Values used to determine the pacing and tension curves

Reflection

Over the course of the past few weeks, I feel that my level has met the intention I wanted with its design. As I stated in the Intent and Playtest Analysis section, everything I intended to put in the level ended up making its way into the level. Even after playtesting and modifying the map, the original intent can still be seen through the layouts and engine pictures. My goal was to create a 4v4 capture the flag map that used three different methods of approaching the enemy side. I feel that the middle platform and the side ramps achieve that goal, while also achieving the goal of creating a well-balanced middle portion of the map that would hold most of the map's contention.

My final goal of making this level would be to create a balanced team base that could both balance the power of the middle section and be equally fair to both attacking and defending teams. By setting up the barriers in their current location and current heights, it allows the defending team to hold fortifying positions against the attacking team, while also giving the same fortifications to the attacking team by protecting them from being destroyed straight from the defending team's spawn. Putting a sniper rifle and shock rifle on each team's side allows for contention against players who camp the middle platform with a rocket launcher. Overall, I feel that I was very successful in achieving the goals I desired and responding and implementing feedback based on playtesting.