

Tien Tam - System Designer Test



Break down the properties of the AK-47 in the context of a third person shooter. Use no more than one page.

Design Overview

I created straight forward properties for the AK47. I imagined it would be used in a game like Uncharted, where guns are a part of the gameplay but aren't the dominant aspect. The AK47 is an iconic gun and I wanted to do it justice by making it feel powerful and deadly at mid range. While it has the power to do a lot of damage, there is a trade off in terms of accuracy and recoil. As a designer I believe in rapid prototyping and iterating on the design through testing gameplay. So I decided to go ahead and create this weapon with all the properties below in Unreal.

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|-----------------------|---|---|
| Magazine Size Max | 30 rounds | This is the max amount of ammo the magazine can hold |
| Ammo Capacity Current | X | This assumes guns in the game use a conservative reload mechanic, where the remaining ammo in the magazine goes back into this field. |
| Ammo Capacity Max | 90 rounds | This is the max amount of ammo for this gun that the player can hold, plus the 30 rounds that are loaded. I want to limit the player to 4 magazines. |
| Handling | | How the weapon affects the players movement while they have it equipped. |
| ADS | | Aim Down Sights reduces player movement and look speed but increases accuracy and reduces recoil. |
| Mode of Fire | Semi-auto/ Full-auto | The gun's mode of fire can switch between Semi-auto and Full-auto. I wanted to switch between fire modes to give the player a tactical choice. |
| Reload | | Plays reload animation. Player cannot fire during reload sequence. Reload updates ammo count towards the end of the reload animation. |
| Rate of Fire | 40 RPM/ 600 RPM | 40 rounds per minute (Semi-auto) 600 rounds per minute (Full-auto). This also gives the player choice in how fast to expend their ammo. Semi-auto mode does not have an accuracy penalty.. |
| Recoil | X:-.1, -.5 Y: -.25,-.75 | This controls how much vertical range (Y)and horizontal range (X) the kick of the gun has when it is fired. I wanted the gun to kick up and a little to the left. Aim resets to center when the trigger is released. |
| Accuracy/ Range | Cone of bullet spread that expands at .16CM in diameter/Meter | The weapon's effective range is 0 to 100 meters, after that it is ineffective. I wanted the accuracy to decrease over distance by modifying vector of the hitscan. The closer the target the tighter the bullet grouping. |
| Damage | 25HP | Each hit from the AK does 25HP worth of damage. This assumes base enemy health is 100HP. The AK is a powerful weapon. I wanted it to kill an enemy in 4 shots. |