BLACK ICE STUDIOS

UE4 Engineering Test

Sticky Bomb

Requirements

Everything should be in C++, with variables (if and where necessary) exposed in Blueprints.
The test can be created in either Unreal Engine version 4.26 or 4.27.

Design

- High-level design dictates that your 'sticky bomb' operates much like the Plasma Grenade as seen in the popular Halo game series. Reading through the above wiki page should help illustrate how the sticky bomb should operate for the purposes of this engineering test.

Features

- Use the 'Shooter Game' project which is available in Epic Games Launcher (Learn).
- Replace "Plasma Launcher" with Sticky Grenade Launcher.
- The "Sticky Grenade Launcher" should shoot exactly where you are aiming at
    - This should take into account gravity and projectile trajectory.
    - **HINT**: You can utilize the SuggestProjectileVelocity function to help achieve this.
- The projectile should only attach to characters (any other surface and it will bounce)
- The player starts with three (3) ammo
    - Ammo count should be visible on screen (UI)
    - -1 count for each projectile shot
    - +1 if/when projectile is picked up
- It should be possible to pick up the bomb before it explodes.
    - A floating UI element should show "Press E to Pickup"
- If the player pickups the bomb, it should add the ammo back to its count
- **Do not hesitate to add your own creative touch to mechanics**. Make necessary implementation decisions based on performance, network bandwidth and user experience. Feel free to use any additional assets if necessary.

Networking

- All the features should work in a singleplayer and multiplayer environment.

Submission

- Please archive and share results with us in any way that is convenient.