

演示视频:

https://www.bilibili.com/video/BV1hKcbxEee/?spm_id_from=333.1387.homepage.video_card.click&vd_source=f9ab6cfb3a9dcd7822b3ada50a02c2ae

```
// Server Only
void AEnemy::GetHit(const FVector& ImpactPoint)
{
    const FVector Forward = GetActorForwardVector();    // Normalized already
    const FVector ImpactPointChangeZ(ImpactPoint.X, ImpactPoint.Y, GetActorLocation().Z);
    const FVector ToHit = (ImpactPointChangeZ - GetActorLocation()).GetSafeNormal();

    // 向量点乘判断前后
    const double CosTheta = FVector::DotProduct(Forward, ToHit);
    double Theta = FMath::Acos(CosTheta);
    Theta = FMath::RadiansToDegrees(Theta);

    // 向量叉乘判断左右 UE是左手系
    const FVector CrossProduct = FVector::CrossProduct(Forward, ToHit);
    if (CrossProduct.Z < 0)
    {
        Theta *= -1.f;
    }

    FName SectionName("FromBack");
    if (Theta >= -45.f && Theta < 45.f)
    {
        SectionName = FName("FromFront");
    }
    else if (Theta >= 45.f && Theta < 135.f)
    {
        SectionName = FName("FromRight");
    }
    else if (Theta >= -135.f && Theta < -45.f)
    {
        SectionName = FName("FromLeft");
    }
}
```

```
if (Health > 0.f)
{
    // 考虑多方向播放受击Montage
    // PlayMontageInfo is a replicated struct
    PlayMontageInfo.Montage = HitReactMontage;
    PlayMontageInfo.StartSectionName = SectionName;
    if (auto GameState = UGameplayStatics::GetGameState(this))
    {
        // 确保PlayMontageInfo发生变化 确保Client也执行
        PlayMontageInfo.TimeRequested = GameState->GetServerWorldTimeSeconds();
    }
    PlayMontageInfo.ImpactPoint = ImpactPoint;
    PlayMontageInfo.bDeathAnimation = false;

    PlayMontage();
}
else
{
    // 考虑多方向播放死亡Montage
    // PlayMontageInfo is a replicated struct
    PlayMontageInfo.Montage = DeathMontage;
    PlayMontageInfo.StartSectionName = SectionName;
    if (auto GameState = UGameplayStatics::GetGameState(this))
    {
        // 确保PlayMontageInfo发生变化 确保Client也执行
        PlayMontageInfo.TimeRequested = GameState->GetServerWorldTimeSeconds();
    }
    PlayMontageInfo.ImpactPoint = ImpactPoint;
    PlayMontageInfo.bDeathAnimation = true;

    PlayMontage();

    GetCharacterMovement()->DisableMovement();
    GetCharacterMovement()->StopMovementImmediately();

    SetLifeSpan(5.f);
}
}
```