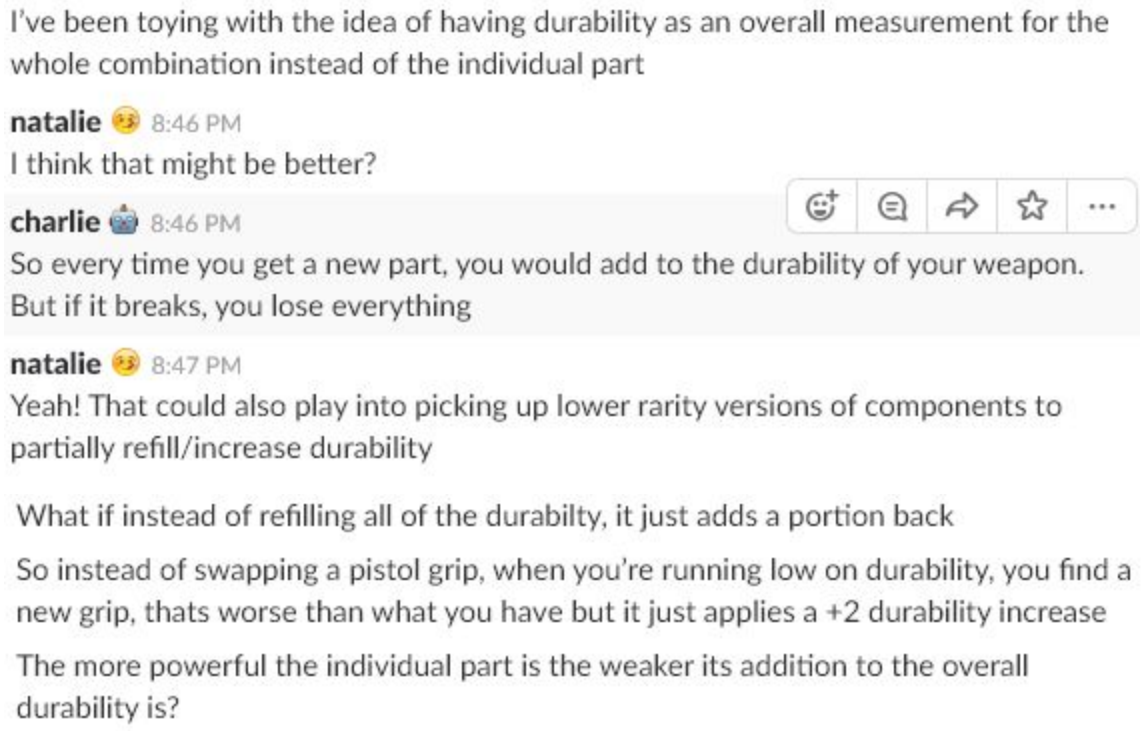
What if we redesigned durability?



What does that entail?

1. Durability is calculated for the whole weapon, not per-part such that

$$D_{overall} = (D_{Barrel} + D_{Mechanism} + D_{grip} + D_{sights}) * P_{legendaryModifier}$$

   where D is the durability stat of each part, and P is a positive number less than or equal to 1 that relates to the number of Legendary or Rare parts on the gun. This ensures that there's a balance in place for players who have built incredibly powerful guns out of legendary parts.

2. While holding a part a player can choose to either press E as usual to equip it, or R to Consume the item to partially repair your gun.

3. Repairing your weapon gets less effective the more times you do it, and depends on the Rarity value of the weapon piece being consumed.

    - Consuming a LEGENDARY Piece repairs your weapon fully the first time, and becomes 10% less effective each time you consume one, down to a minimum of 50%

- Consuming a RARE piece repairs your weapon by 75%, then becomes 10% less effective each time you consume one down to a minimum of 25%

- Consuming a COMMON piece repairs your weapon by 50%, and becomes 10% less effective each time you consume one down to a minimum of 10%

4. These values are always rounded up to the nearest whole number when converting from percentages

This means:

Durability belongs to the whole weapon, not just individual parts-- meaning that if you aren't managing your shots in a firefight you could end up at a severe disadvantage.

Common parts offer much more durability then rare or legendary parts, meaning that players who have a gun with lots of legendary or rare parts would have to scavenge for lower level parts to repair the weapon

Balancing parts would have to be revisited again, the ability to hold onto a part for a very long time will completely change the meta of the game.

The Magnet arm will have to be rebalanced so you cant pick things up from halfway across the map.

How do we convey this information to the player?

Conveying one value to the player is much easier than conveying the durability of each part individually.

In the HUD Overview Document I've already accounted for this potential change, I'll reiterate how the hud would work here.

The left number shows the current number of bullets in the clip.

The right number shows the current durability of the gun (the total number of shots left before the weapon breaks)

The backlight scanline effect moves from blue to orange and finally to red (when the weapon's durability is critical)

What if we didn't:

Idea One:

When the weapon part gets to Critical (Next shot destroys that part) We swap the shader to one that flashes red at an interval (a la Breath of the Wild). We can add particle effects like smoke and sparks coming off of the critical parts, to make it less Game-y.

How would we implement that?

Unity's Materials properties are accessible c# scripting, using GetComponent<Renderer>.material , From there we can access and lerp between different material values to create an pulsing effect-- or we could even lerp between two separate texture maps one being "healthy" and the other being a "critical" version