As the game is essentially an expansion for Smash 4, we already have a platform which we can use for prototyping. The main additions to the game are the four new characters, four new stages, the meter mechanic, and balance changes to the existing character roster, so prototyping will focus mainly on implementing the new characters and stages and general balance testing. However, it will take some time before the new characters are in a testable state, as their art assets have to be made from scratch, so the initial stage of prototyping will be starting on balancing the old characters with the meter mechanic and testing the new stages (as a testable stage greybox should be much easier to create than a rigged character model).

The existing characters will be balanced based on data gathered from the game's online mode and recent tournaments, such as character pick rate and win rate, as well as observing how characters are used in a competitive format, such as what moves typically combo into other moves, and what moves are used more often or less often. If the data and/or community opinion suggests that a character is either too strong or too weak in some areas, changes will be made to one or more aspects of the character to remedy the issue, and the changed version will be sent to playtesting. If playtesting reveals new issues with character balance, new changes will be made, and the process will repeat. Characters on the extreme ends of the balance spectrum will be prioritized over characters who might be already in a good state. Balance testing for the existing roster will continue across both phases of prototyping.

Once the new characters are in a testable state (base model completed, animations done), they will be phased into character testing along with the existing characters, following the format used above.

## **Exposed Variables**

- General character stats (weight, speed, gravity, hurtbox size, meter use)
- Character moveset stats (frame data, damage, launching power, hitbox size)
- Stage details (transition time, hazard damage, moving platform speed)

## **Necessary Assets**

- Basic models and animations for new characters
- Gameplay-specific visual effects (visual move cues), can be placeholders
- Gameplay-specific sound effects (audio move cues), can be placeholders
- Basic greybox for new levels

