Stormbreakers Fighting Game Primer

1. Movement
   1. Fighting games use an 8-way directional digital input system.
      1. These 8 directions correspond to the numbers on a keypad, and are sometimes written out this way, as shown here: <http://bit.ly/2iGGrQ0>
         1. When using this notation, it is always assumed the character is facing to the right.
      2. For example, 5A means pushing “A” while you are not inputting any direction, while 2A means pushing “A” while inputting 2, or down.
   2. Since the input is digital, there’s no difference between moving the joystick all the way to the edge of the controller and lightly tapping it.
      1. This is different from games like Smash Bros. where lightly tapping a direction is necessary for certain attacks
   3. Tapping a horizontal direction twice will cause the character to dash
      1. i.e., pressing forward twice (66) or back twice (44) will result in a dash
   4. Pressing any upwards direction (7, 8, or 9) will result in a jump in the direction used
      1. While jumping, players can either jump again (by inputting either 7, 8, or 9) or they can dash in the air by inputting a dash (Either 66 or 44)
2. Normal Attacks
   1. Pressing an attack button will make your character attack
   2. Different attacks have different speed and damage.
   3. Stormbreakers will use 4 main attack buttons, called A, B, C, and E
      1. A is a “light” attack. It’s fast, but short range and deals little damage
      2. B is a “medium” attack. It’s slower than A, but has additional range and damage
      3. C is a “heavy” attack. It’s the slowest type of attack, but inflicts the most damage
      4. E is a special attack button used to interact with the elemental enhancement chosen by the player
   4. Crouching and Jumping result in different attacks than simply pushing the attack button on its own
   5. In certain cases, pressing a direction at the same time as an attack button will result in a different attack, referred to as a “Command Normal”
3. Normal Throws
   1. In addition to attacking the opponent, you can also Throw them.
   2. Unlike regular attacks, throws cannot be blocked
   3. They are useful for dealing damage to opponents who do nothing but block
   4. Throws are performed by pressing “A” and “E” at the same time.
4. Blocking
   1. You can block an opponent’s attack by simply holding the joystick away from the opponent
   2. Certain attacks hit the opponent “low” and others hit “high”
   3. Low attacks must be blocked while crouching, or holding down + back (1)
   4. High attacks must be blocked standing, or while holding back (4)
      1. High attacks are sometimes referred to as “Overheads”
5. Special Attacks
   1. Inputting a series of directional inputs followed by an attack button will result in a Special Attack
      1. An example would be Ryu using a quarter-circle forward motion to throw a fireball
      2. These inputs are also usually written in number notation, so quarter circle forward would be 236
      3. It’s called a “Quarter Circle” because it completes a quarter of a full circle motion (<http://bit.ly/2wgaJ0O>)
   2. The inputs planned for Stormbreakers are Quarter Circle (236 or 214), Half Circle (63214 or 41236) and Dragon Punch (623)
      1. Dragon punch visually: <http://bit.ly/2wQhBmY>
   3. Special attacks are usually stronger than normal attacks, but the inputs used to get them is the main balancing feature
   4. Even when blocked, special attacks do a small bit of damage known as Chip Damage
6. Technical Stuff
   1. Time in fighting games is measured in “Frames”
      1. Fighting games are usually locked at 60 frames per second, so one frame is 1/60th of a second
   2. All attacks have 3 main stages; startup, active, and recovery.
      1. Startup: The beginning of an attack where the character is winding up, preparing to strike
      2. Active: The meat of the attack itself, where the attack has a hitbox and can deal damage
      3. Recovery: Any time after the Active portion of the attack, up until the character can move and act again
         1. Big attacks with long range often have larger startup and recovery periods as a means of balancing them
      4. Example: <http://bit.ly/2wgfCqm>
         1. This attack has 3 “frames” of startup, so there’s a 3/60th of a second (1/20th) between the game registering the input and the attack coming out
         2. It also has 4 active frames, so there are 4 frames where the attack can hit and deal damage to the opponent
         3. Finally, after the active frames end, there are 6 frames where the player cannot move.