1. Input
   1. Relegate to buffer
      1. Abstract inputs
         1. Directional Motion (U,D, L,R)
         2. Buttons (BUTTON1->BUTTON8)
      2. Ring array
2. Physics
   1. Apply different physics to different objects
      1. Character physics
      2. Platform physics
   2. Collider interface
      1. Intersections between colliders are checked each frame
      2. Different kinds of colliders
         1. Sensor Collider : Has horizontal and vertical sensors that detect collisions
            1. Used for player to detect uneven surfaces
         2. Pillar Collider: has an array of values that correspond to heights
            1. Used for terrain
      3. Different colliders can be checked in different ways
         1. Active Colliders: constantly check for collisions
         2. Passive Colliders: never check for collisions
   3. Knockback system
      1. Apply momentum to change an object’s velocity in a specific direction.
         1. Knockback is applied a velocity that is added to character velocity every frame
            1. SSB -> knockback\* .03
            2. Character velocity is still influenced by forces independent of knockback, such as gravity.
      2. Knockback is calculated based on strength of attack, weight of character, etc.
         1. TODO: Formula.
      3. Knockback adding
         1. Knockback is added to itself in various ways depending on the strength of the knockbacks being added.
            1. Knockback is timestamped to reflect this.
      4. Knockback decays after hitlag
         1. SSB -> knockback \* .051 (use sin and cos for y and x component respectively)
      5. Hitstun is proportional to knockback
         1. SSB -> knockback \* .4
3. Game Controller
   1. Array for colliders
   2. Keep track of game time
      1. Frame rate
   3. Singleton object
4. Character Motion
   1. Basic movement emulates motion in SSB
      1. Walk->dash
      2. Short hop->full hop
   2. Can change velocity in air and ground, but can accelerate to full speed instantly in both cases.
5. Character Abilities
   1. Attacks
   2. Pause:
      1. Freezes everything on screen except for player
         1. Visually appears as a slowdown effect to full stop
      2. Enemies hit while paused have knockback applied consecutively rather than all at once.
         1. Store hits in a queue, which are timestamped to reflect when one knockback is applied after another.
         2. Knockback that occurs from hitting a wall happens before next knockback is applied; this is so that enemies hit repeatedly in a direction against a wall will appear to bounce off the wall repeatedly.