Enemy Core Design

Stats

- **Type** - There will be different types and species of bugs that have different traits. The type of a bug is descriptive in nature and may be used to group bugs with similar traits, areas, looks, origins.
- **Traits** - Traits are divided into categories of which an enemy can only have one trait from a category at a given time. The traits will define the actions and behaviour of the enemies. Traits will be for attributes that vary from one another or do not have a scaleable numerical value.
    - **Weight/Size** - how big the bug is. A bigger bug mean it takes up more space and is easier to hit and limits where it can go.
        - Small
        - Medium
        - Large
   - Gargantuan
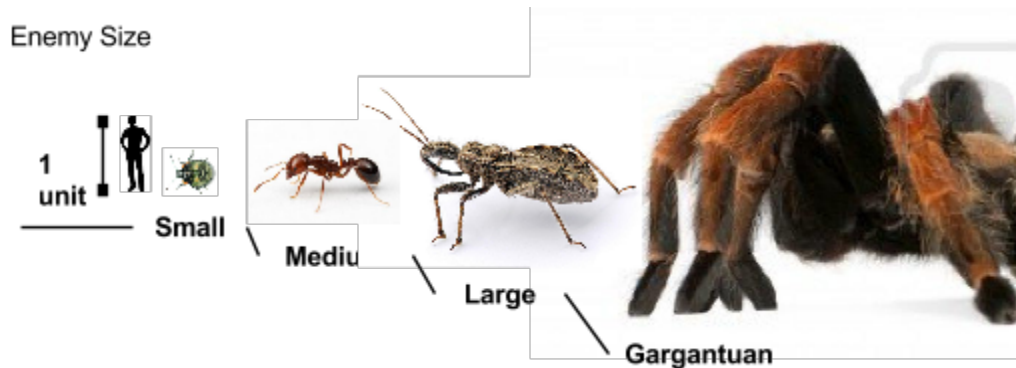
    - **Locomotion** - how the bug gets around.

        - Crawl - back and forth movement. Generally a trait of a small or legless bug.
        - Walk - moves straight towards the player.
        - Jump- Doesn't have a normal walk cycle and jumps.
        - Fly - can move over obstacles.
    - **Spawner** - If the bug is a spawner it is able to generate more enemies.
        - Calling- Pops on screen, and makes a sound (chirping) to increase speed of spawners.
        - BroodMother- Acts as an enemy spawner. (Queen Ant)
    - **Attack -** how the bug deals damage
        - Suicide - Hits the player and dies. Normally a spawned trait.
        - Charge - Runs into the player or jumps on players.
        - Melee - Once close enough deals damage at close range, example a bite attack would be close range melee.
        - Ranged - can deal damage from a distance.
        - Grapple - grabs a hold of the PC and doesn't let go until the player does enough Melee damage to it
    - **Effect** - any special effects the bug produces

- **Health** - This is the amount of damage the bug can take. Once health reaches zero the bug will die. Bugs cannot heal themselves or others however types of bugs may be able to regenerate health over time. A counter to not being able to heal is the spawning of smaller bug if it is of that type.
- **Armor** - This describes where the bug has more armored parts of its body and what its weak points are. The armored parts are given a percentage that is deducted every time it takes a hit in an armored spot. Hits in non-armored spots or critical areas are deducted as normal from its health.
- **Speed** - this is the speed of which the bug can move across the map over an amount of time. Since not all bugs will move the same this is not the same as the speed of their movement. For example, a bug that goes back and forth will reach it's target later than one that moves in a straight line. If a bug only moves by jumping there is a pause between jumps making it slower than the speed of it's jumps.

Mechanics

- **Attack** - This is the action done by the bug to deal damage to the PC only. The fashion in which the damage is dealt is dictated by the attack trait of the bug. Once the requirements of the attack are met then the bug will attack the PC dealing damage and reducing the PC's health points. Generally attacks will need a cool down time. Also depending on the effect trait a bug's attack may cause ill effects on the PC.
- **Movement** - The movement of the bugs in the game is similar to the player. The bugs may move along both the 'x' and 'y' axis and rotates 360o around the 'z'. Direction of movement is generally towards the player but can change as dictated by the type's AI behaviour. How the bug moves is dictated by the Locomotion trait. Depending on which trait the bug has it may be able to move over certain terrain and obstacles normally impassable (fly and jump).

Enemy Movement
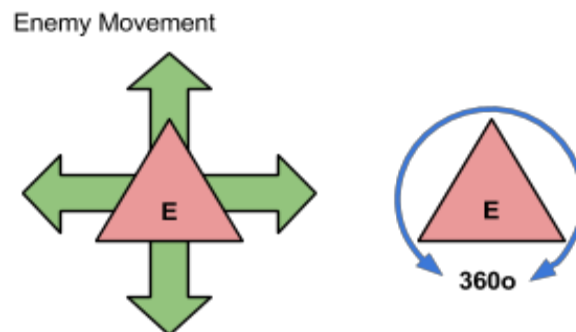
- **AI** - The basic and primary behaviour of all enemies is to attack the PC and deal enough damage to reduce the PC's health to zero. The secondary behaviour is to avoid damage and survive, from both the PC and environment. The last basic behaviour is it will try to use any abilities in the most effective manner to deal damage. In early game play enemies will display a more basic strategy in just dealing damage, and when unable to avoid it. As the game progresses the enemies become smarter, example is they will avoid damage over attacking to deal more damage in the long run.
  The Three Laws of Buggy AI:
  - Attack the PC to kill the PC.
  - Try not to die.
  - Unfairly use super abilities.