

Group 1: Week 7



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Slime Puzzle Game

Tasks

- Implemented new level system
- Added a finite state machine for enemy AI
- Multiple enemy implementation
- Reduced texture sizes for performance
- Continued model development

Levels

Previous Week: Level was scripted within Controller class. Did not allow for multiple level creation.

Level.js: Contains objects associated with level.

LevelManager.js: Multiple level creation. Level switching.

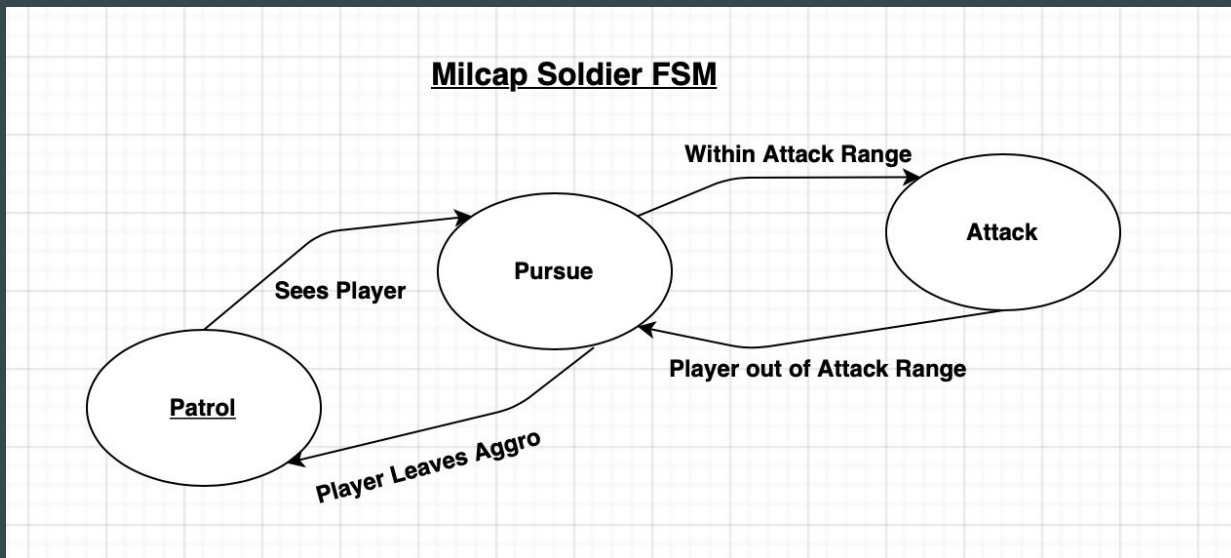
- currentLevel
- enemies[]

Yuka AI

- Previously, we demonstrated Yuka's Path class which determined an enemy's patrol path
- This was good as a base implementation of enemy movement, but we wanted a way for the enemy to react to certain conditions:
 - What does it do when it sees the player?
 - What does it do when it reaches the player?
 - What does it do when it loses the player?

States and State Machines

- We decided to use Yuka's finite state machine implementation
- A state machine is a system of states and transitions
- For our Milcap Soldier Enemy, we planned out a series of states:



State Machine Code!

```
class PatrolState extends State{

    enter(enemy) {
        console.log("Now patrolling!");
        //can be used to play an animation of some sort
    }

    execute(enemy){
        if(enemy.seesPlayer()) {
            enemy.stateMachine.changeTo(PURSUE);
        }
        enemy.moveEPath();
    }

    exit(enemy){
        //some sort of alert to the player
    }

}
```

```
class PursueState extends State{

    enter(enemy) {
        console.log("Now chasing player!");
    }

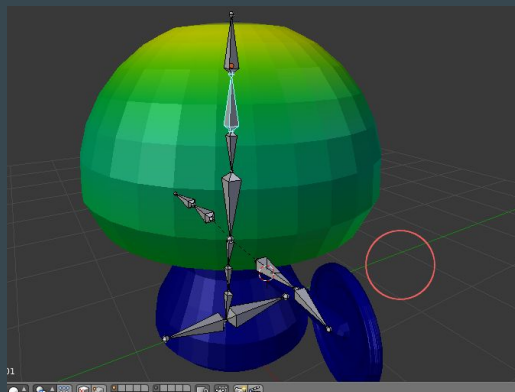
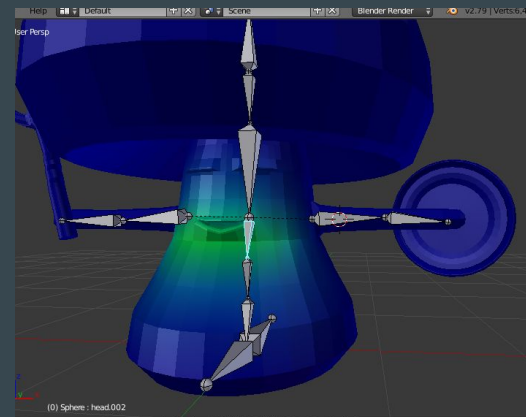
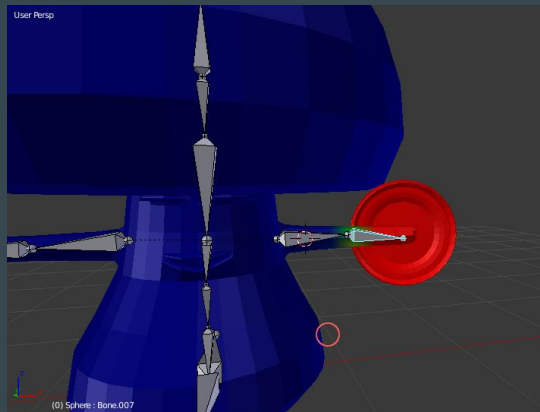
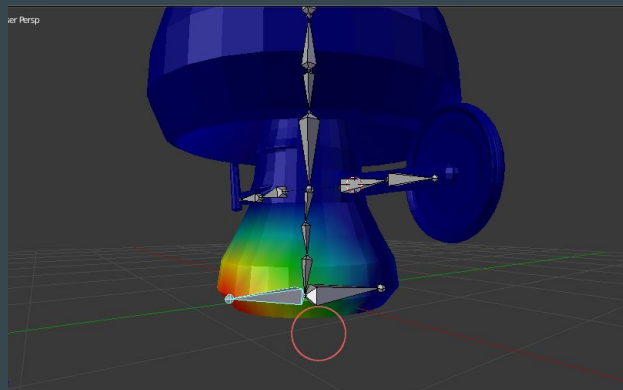
    execute(enemy){
        if(!enemy.seesPlayer()) {
            enemy.stateMachine.changeTo(PATROL);
        }
        enemy.moveToPlayer();
    }

    exit(enemy){

    }

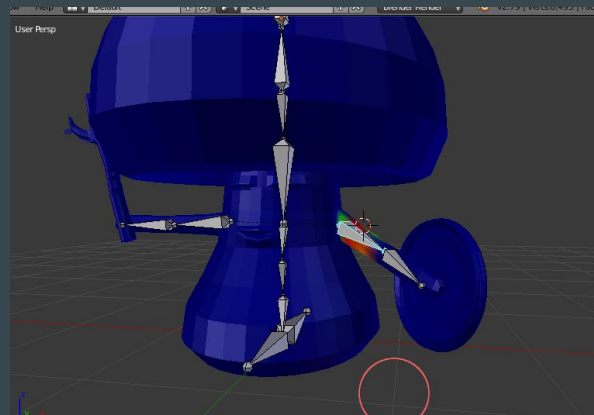
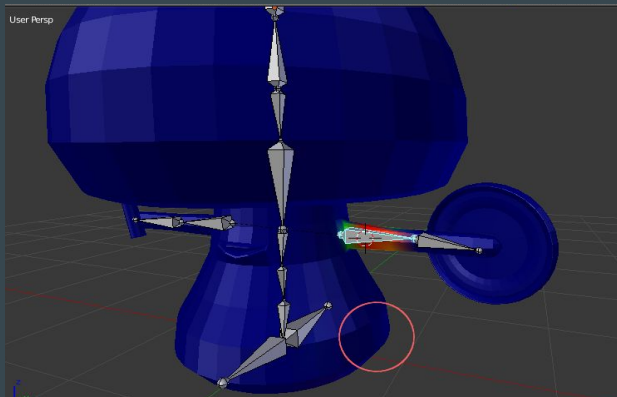
}
```

Model Weight painting

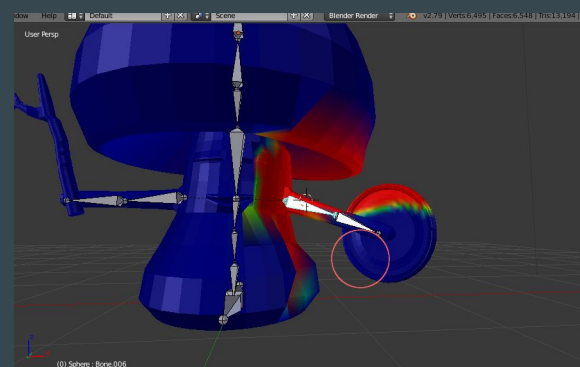
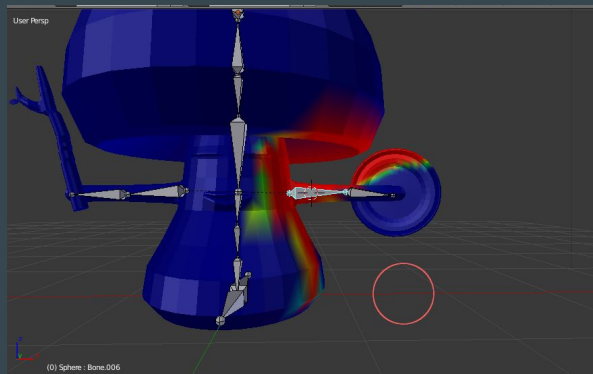


Model Weight painting

Good



Bad



Tasks for After Spring Break

- Add action point (AP) system
- Implement attack and absorption
- Win condition
- Title/End Screen
- Ability enemy
- New enemy model, animations for units
- Replace the placeholder boxes!