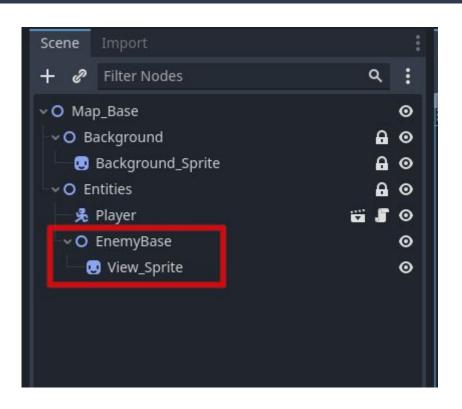
# Godot Course Survivor

02 - Enemy

#### Assets

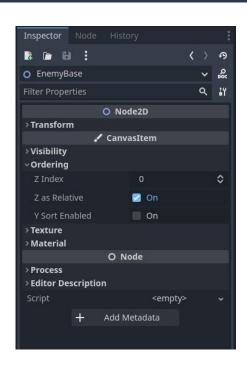
https://drive.google.com/file/d/1wJ-tTFoh5gHyfbWK VAzfMWa0ee7YfepQ/view?usp=sharing

### Enemy – structure



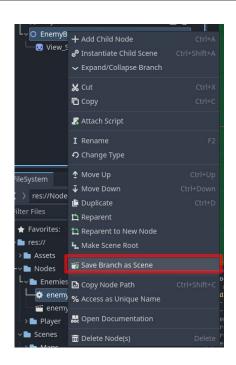
- Entities: Node2D
  - EnemyBase: Node2D
    - View\_Sprite: Sprite

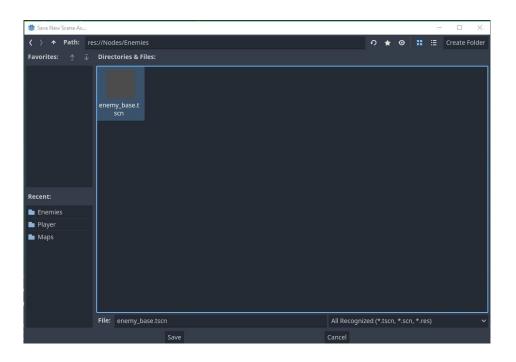
# Canvas - Ordering



- Z-Index
- Z as Relative
- Y Sort Enabled

#### Save Branch as Scene

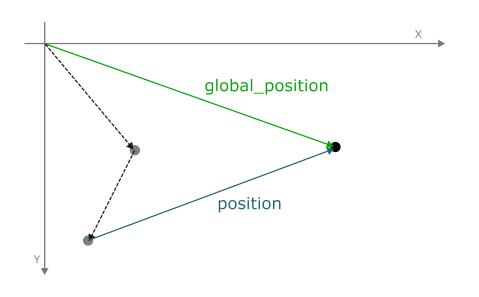




### Enemy movement

- 1. class\_name EnemyBase
- 2. Player move algorithm
- 3. Target Node2D
- 4. Target direction math

### Node position vs global postion



Node2D.position:

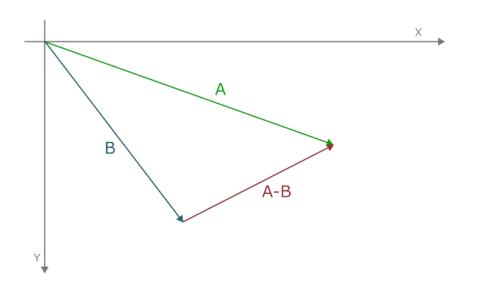
Vector2 position in relation to it's parent node.

Node2D.global\_position:

Vector2 position in relation to the center of the coordinate system.

Sum Vector of all parent's and itself position

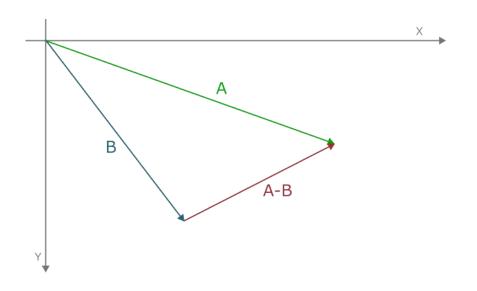
### Direction Vector



$$A - B = C$$

C is new vector in direction to A vector.

#### Direction Vector

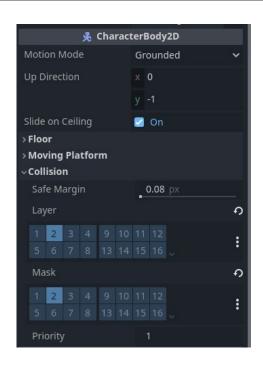


$$A - B = C$$

C is new vector in direction to A vector.

B.direction\_to(A), but normalized (A - B).normalize()

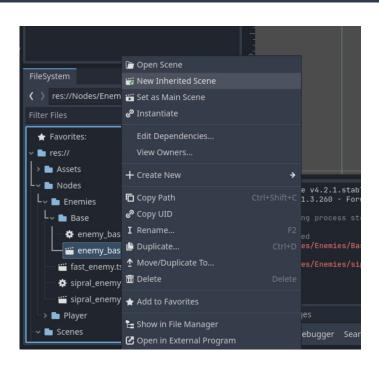
#### Collision Matrix



Layer — represents collision layers on which that object is present.

Mask — represents collision layers which objects check for collisions

#### Inheritance scene



Scene file -> RMB -> New Inherited Scene

Remember to save before anything!

# Links

Collision Layers	https://docs.godotengine.org/en/stable/tutorials/physics/physics_introduction.html#collision-layer s-and-masks
Using CharacterBody2D/3D	https://docs.godotengine.org/en/stable/tutorials/physics/using_character_body_2d.html
@export annotation	https://docs.godotengine.org/en/stable/tutorials/scripting/gdscript/gdscript_exports.html