

Angry Birds Like

Link to download the project:

<https://drive.google.com/file/d/1B1Ly5qfnPMHJKo8bAy92BRqo10tMM460/view?usp=sharing>

Task 1 - Starting point

Get acquainted with the project.

[Open]

task1/scenes/Scene1.tscn - A basic level setup with the cannon and cannon ball for shooting, a single piece of metal construction.

[Inspect]

task1/scenes/Cannon1.tscn - A prepared structure for a cannon.

task1/scenes/CannonBall1.tscn - A prepared structure for a cannon ball.

[Heads up]

Do not spy on the solution in subsequent tasks ;)

Task 2 - Control the cannon elevation

Implement cannon elevation by tracking the mouse position.

[Inspect]

task2/scenes/Scene2.tscn - A basic level setup now with the background.

[Code]

task2/scripts/Cannon-v2.gd - There is a new method *rotate_to*, implement it using *look_at*.

[Code]

task2/scripts/Game-v2.gd - There is an *_unhandled_input* method to finish, make use of *rotate_to* method you've implemented in the previous step.

[More info]

[Input examples](#)

[Using Input Event](#)

Task 3 - Slingshot mechanic

Implement shooting the bird via dragging the "slingshot". We have cannon, never mind.

[Inspect]

task3/scenes/Scene3.tscn - A basic level setup now with the background.

[Inspect]

task3/scripts/CannonBall-v3.gd - Check how *start_moving* is implemented, i.e., triggers the code within *_integrate_forces*, which is Godot way of exposing internal rigid body way as well as a place where it is safe to manipulate it. See [docs](#).

[Code]

task3/scripts/Cannon-v3.gd - implement *shoot* method, shot direction should be taken from the cannon's Head rotation. Make use of CannonBall's *start_moving* method.

[Code]

task3/scripts/Game-v3.gd - implement the shooting mechanic while also drawing a red line that expresses the strength of the shot; there are multiple TODO places.

[More info]

[RigidBody2D — Godot Engine \(stable\) documentation in English](#)

[Line2D — Godot Engine \(stable\) documentation in English](#)

Task 4 - Constructions

Play with some physics parameters.

[Inspect]

task4/scenes/Scene4.tscn - A level that has some blocks (ConstructionX) put within the scene.

[Play]

Start the scene, shoot, observe different mass/weight.

[Experiment]

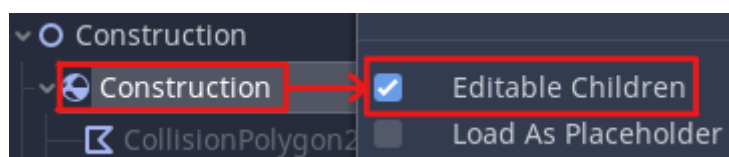
Play with mass, weight, gravity scale of the cannon ball and blokcs.

[More info]

[PhysicsMaterial — Godot Engine \(stable\) documentation in English](#)

[Tip]

You can edit children of the included scene.



Right-click the scene instance in the Scene panel and check the Editable Children option to be able to edit children nodes (e.g. change the Texture property of the Sprite or the collision shape).

Task 5 - Destroying the blocks

Changing sprites of the construction blocks upon cannon ball impact and at the end disappearing them completely via alpha tween.

[Inspect]

task5/scenes/Scene5.tscn - A level that has some blocks (ConstructionX) put within the scene. The same as Scene4.

[Code]

task5/scripts/Construction5.gd - implement *on_hit* reaction; the idea is that you have multiple textures of the same construction with a different degree of damage in ``broken_textures``; cycle shown texture upon hits and when there is none left, destroy the object.

Task 6 - Enemies (Homework)

Use ``pig.png`` or ``pig_outline.png`` to create swine enemies and let them be destroyed. Count score in HUD and show "Victory" when all swines are destroyed.

Assets sources

[Kenney • Background Elements Redux](#)

[Cannon Ball Assets – RedFoc](#)

[Kenney • Physics Assets](#)

[Kenney • Animal Pack Redux](#)