C#

(C Sharp)

Explosions

Making the Pokémon “Explodable”

We need a prefab that has colliders and physics:

1. Model settings: check “Generate Colliders”
2. Add model to the scene to create a game object
3. Mesh Collider: check “Convex”
   *(*any mesh collider with a rigidbody needs to be set to convex)*
4. Add a Rigidbody component to the game object
5. Create a prefab from the game object

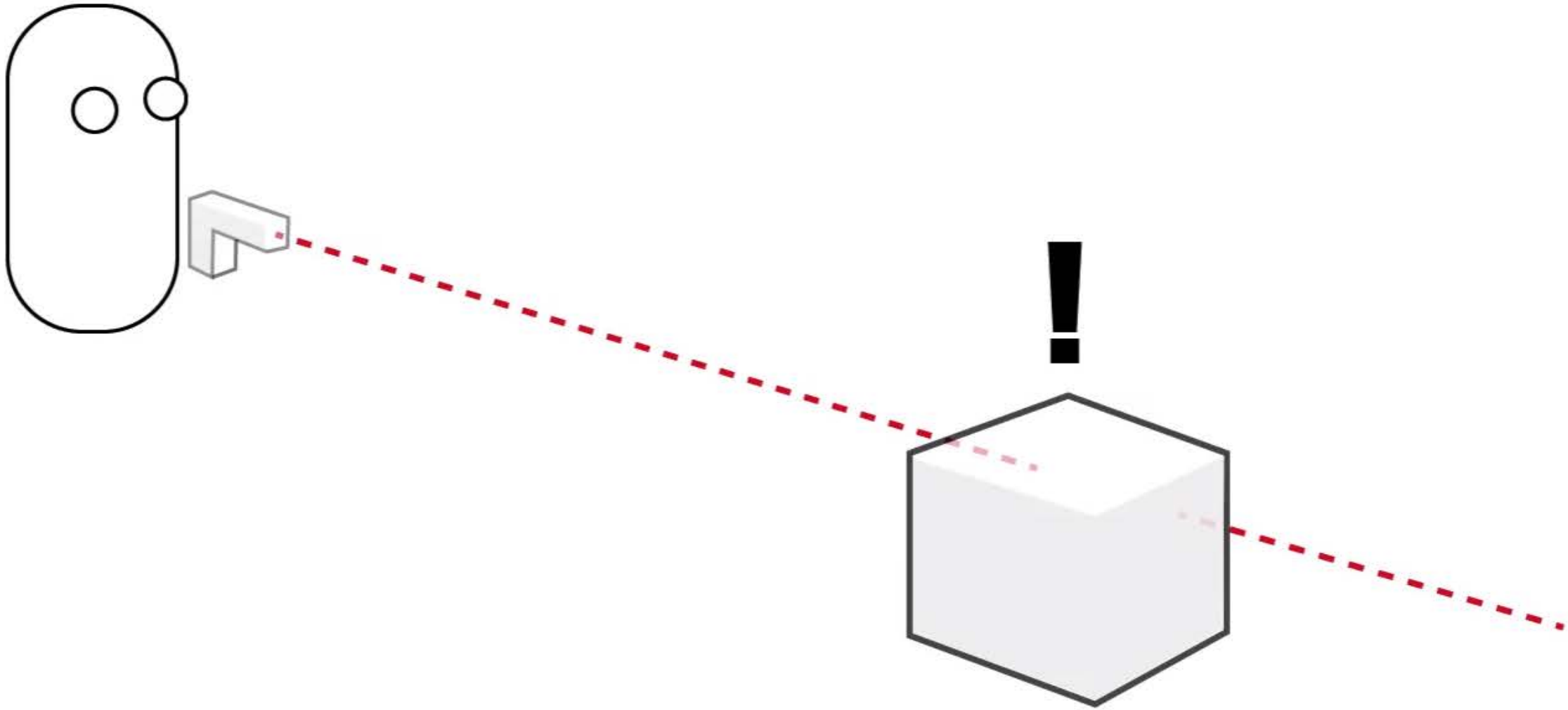
Three Scripts

- SpawnPokemon.cs
  - Attached to an empty game object
  - Randomly place Pokémon in our scene
- FireExplosive.cs
  - Attached to the player
  - Throw an explosive Poké Ball from the player
- Explosive.cs
  - Attached to the Poké Ball
  - Explodes on contact

New Scripting Concepts

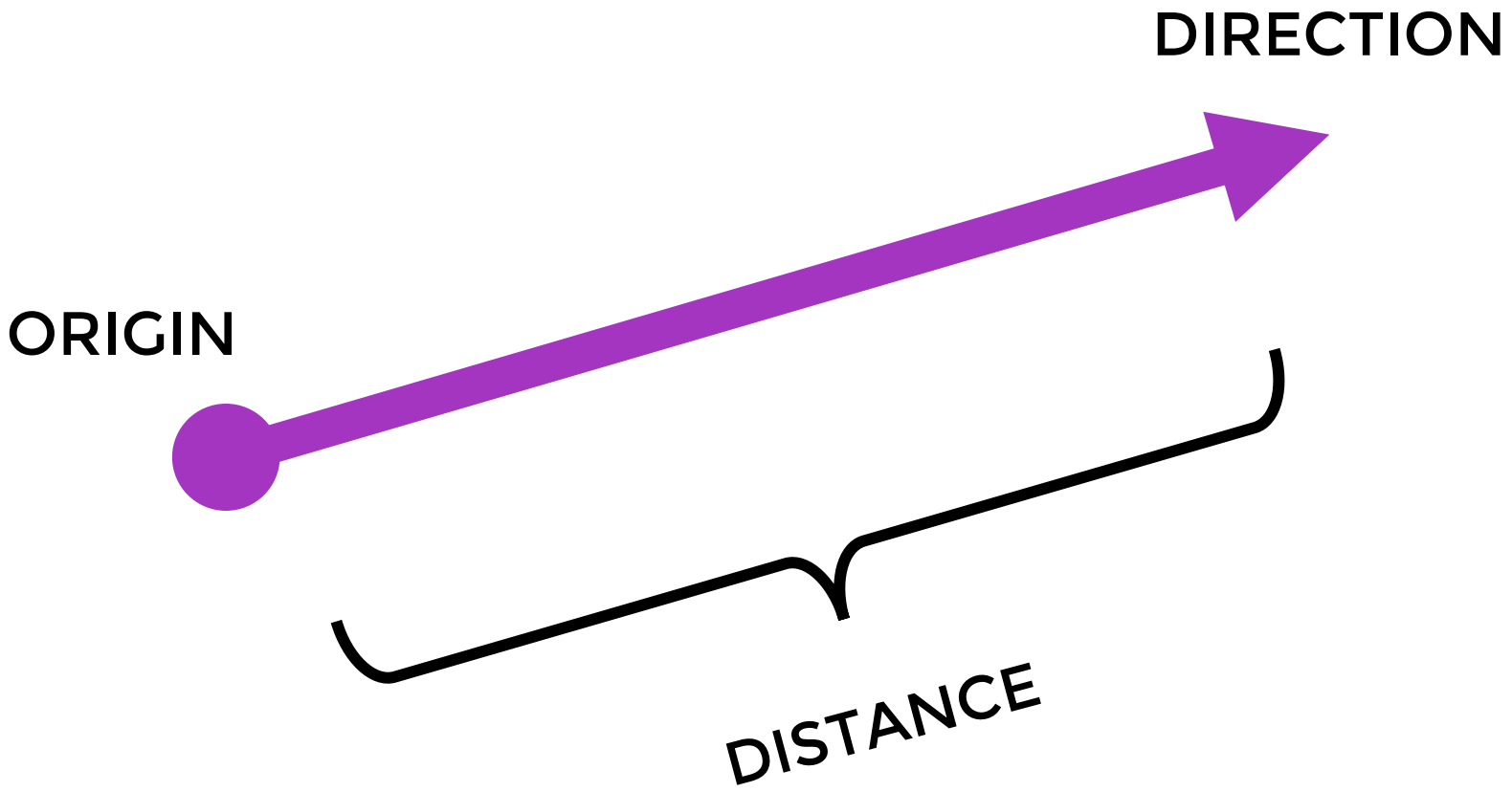
- Destroy(...)
- Finding collisions
  - OnCollisionEnter(Collision collision)
  - Collision
  - Physics class & Physics.OverlapSphere(...)
  - Collider
- Applying forces to rigidbodies
  - Rigibody.AddForce(...)
  - Rigibody.AddRelativeForce(...)
  - Rigibody.AddExplosionForce(...)
- Drawing debugging information
  - Gizmos class & OnDrawGizmos
  - Gizmos.color
  - Gizmos.DrawSphere(...)

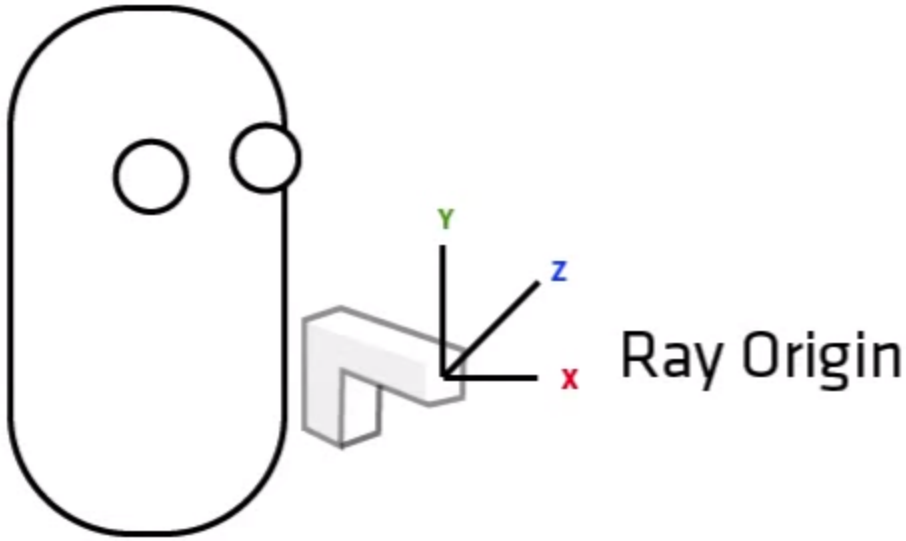
Raycasting

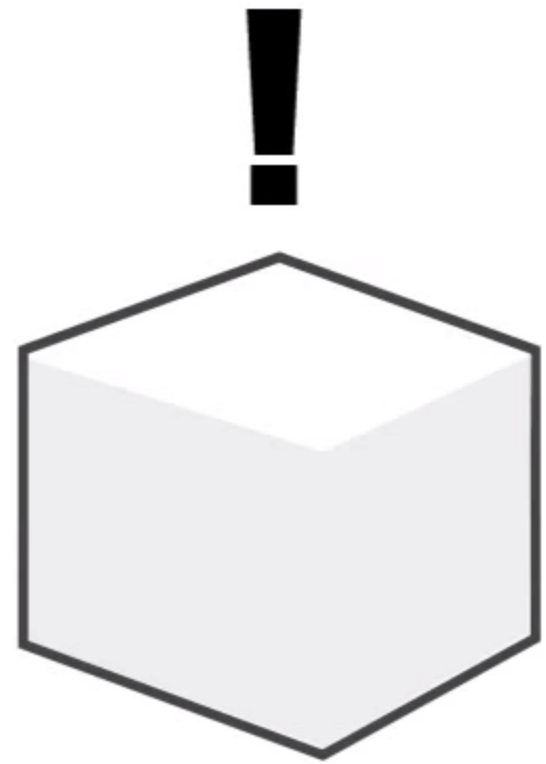


https://unity3d.com/learn/tutorials/topics/physics/raycasting

Ray







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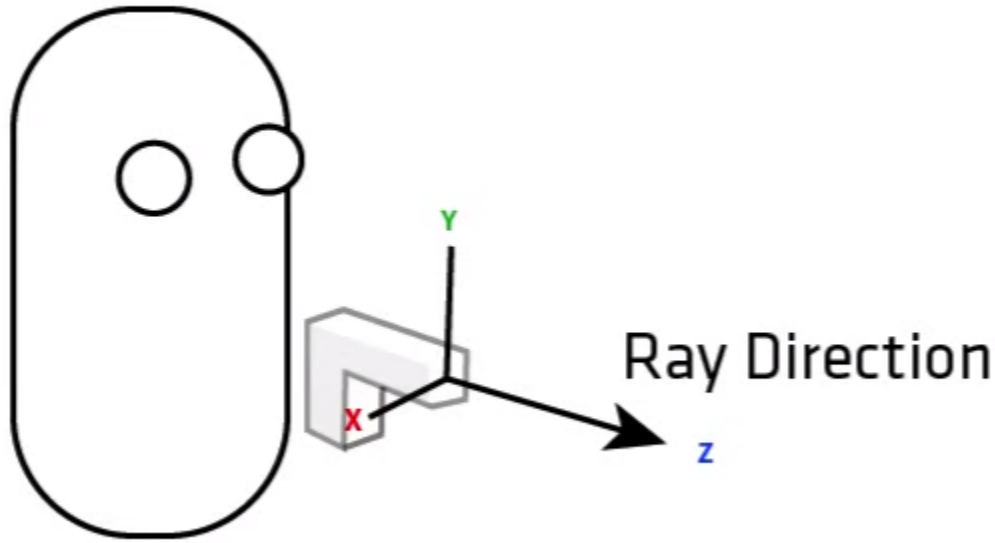

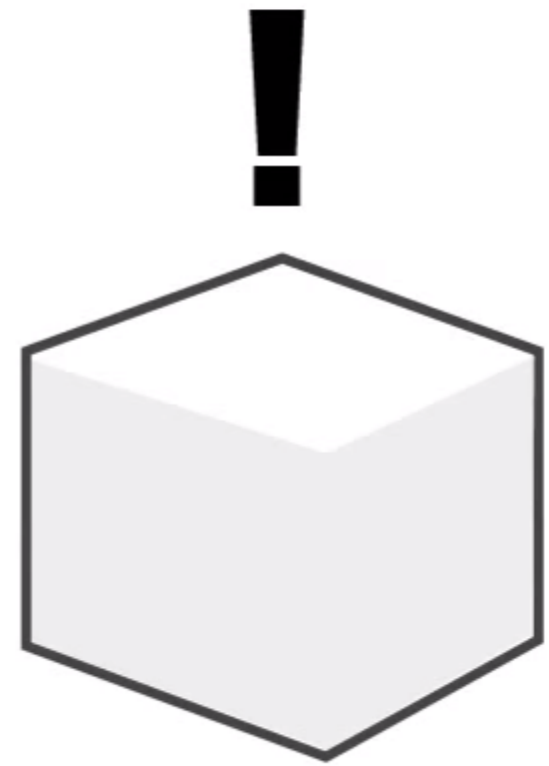

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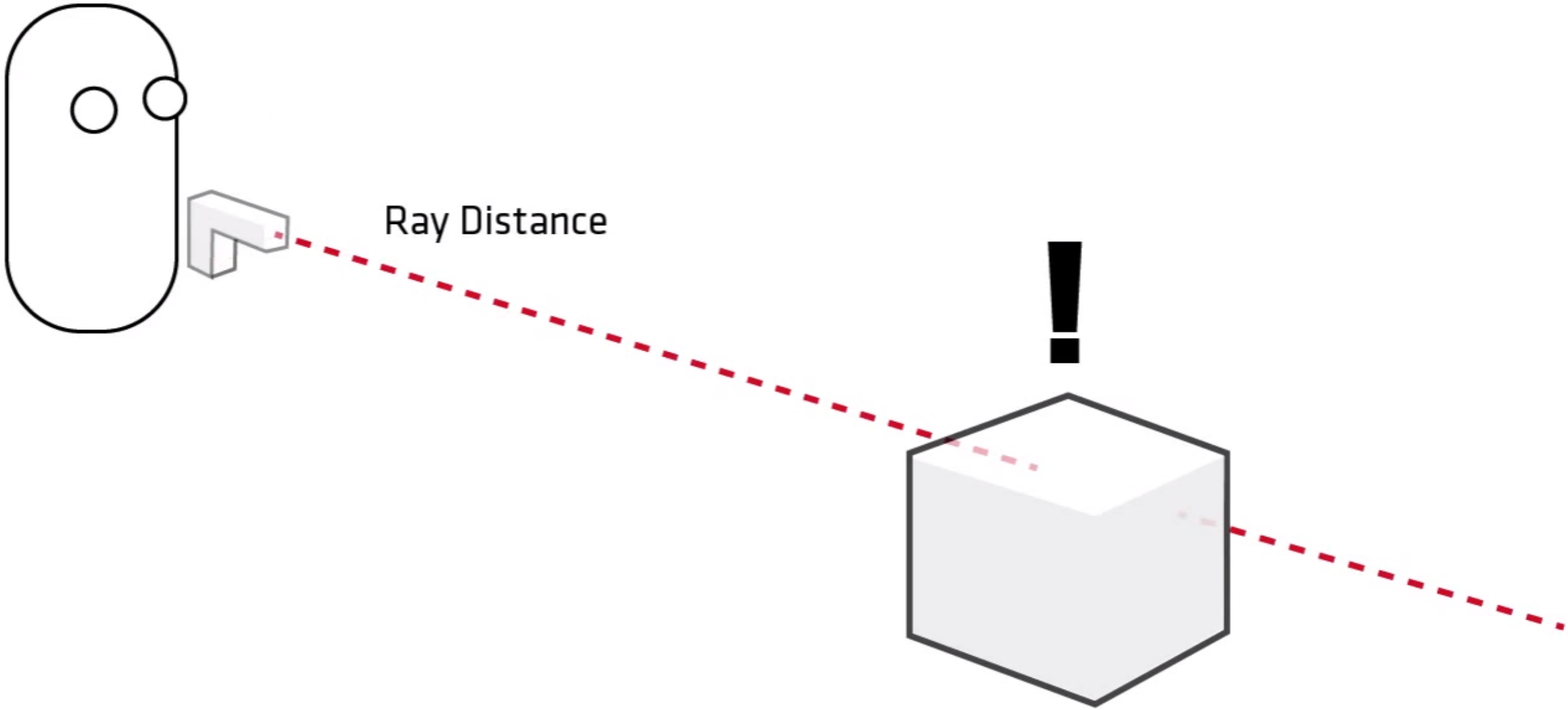

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New Scripting Concepts

- Finding a 3D direction from the mouse position
  - Input.mousePosition
  - Camera class & Camera.ScreenPointToRay(...)
- Raycasting to find object(s) along a path
  - Ray struct
  - Physics.Raycast(...)
  - RaycastHit struct