

Pract-Handle touch input to move an object

1) Make the scene (one time)

1. Open Godot → **New Scene**.
2. Add a root **Node2D** and name it Main.
3. With Main selected → **Add Child Node** → Sprite2D.
 - Rename this sprite to Player.
 - In the Inspector → set **Texture** to your player image (e.g., player.png).
4. Save scene as Main.tscn.
5. We will attach the script to the Main node (because it listens to touch and moves the Player).

⚠ Node names must match exactly: the script uses \$Player so the Sprite must be named Player.

2) Godot 4 — script (tap & drag)

Attach this script to the Main node (click Main → Attach Script → paste):

```
# Godot 4: attach to Main (Node2D)
extends Node2D
```

```
@export var speed: float = 400.0    # pixels per second (adjust in Inspector)
@export var grab_radius: float = 64.0 # how close a touch must be to start dragging
```

```
var target_position: Vector2
var moving: bool = false
var dragging: bool = false
var drag_id: int = -1
```

```
func _ready():
    target_position = $Player.position
```

```
func _input(event):
    # --- Desktop testing with mouse (works in editor) ---
    if event is InputEventMouseButton and event.pressed:
        target_position = event.position
        moving = true
        dragging = false
```

```
# --- Touch press (finger down) ---
if event is InputEventScreenTouch:
    if event.pressed:
        # Tap: set target to touch position
        target_position = event.position
        moving = true
        # If touch is close to the player -> start dragging this finger
        if event.position.distance_to($Player.position) <= grab_radius:
            dragging = true
            drag_id = event.index
```

```

else:
    # Finger released -> stop dragging if it was this finger
    if dragging and event.index == drag_id:
        dragging = false
        drag_id = -1

# --- Finger moved while touching ---
if event is InputEventScreenDrag:
    # If we are dragging with this finger, move the player directly
    if dragging and event.index == drag_id:
        $Player.position = event.position
        moving = false
    else:
        # Otherwise treat drag like continuous tapping to move
        target_position = event.position
        moving = true

func _process(delta):
    if moving:
        var dir = target_position - $Player.position
        var dist = dir.length()
        if dist <= 4.0:
            $Player.position = target_position
            moving = false
        else:
            $Player.position += dir.normalized() * speed * delta

```

4) Test it

- Run the scene in the editor: click to move (mouse works).