

# Creating Position Constraints

Create a position constraint and add it to a node.

## Overview

You lock a node at a specific coordinate with `positionX(_y:)`. Constrain a node's horizontal position with `positionX(_:)`, or constrain its vertical position with `positionY(_:)`.

The following code shows how you can create a node with an attached physics body that is affected by a noise field. The node moves with the noise but is constrained to a rectangular region between 300 and 340 points on both the horizontal and vertical axes.

```
scene.physicsWorld.gravity = CGVector(dx: 0, dy: 0)

let noiseField = SKFieldNode.noiseField(withSmoothness: 1, animationSpeed: 0.1)
scene.addChild(noiseField)

let node = SKShapeNode(circleOfRadius: 10)
node.physicsBody = SKPhysicsBody(circleOfRadius: 10)
scene.addChild(node)

let range = SKRange(lowerLimit: 300, upperLimit: 340)

let lockToCenter = SKConstraint.positionX(range, y: range)

node.constraints = [ lockToCenter ]
```