

Normal

Swift ★★

Starting from the [Placing in Patterns](#) chapter in [Learn to Code 3](#) in the [Swift Playgrounds](#) app, build a project that:

- Has a background displaying a map of the United Kingdom, Ireland and Northern France.

Hard

Swift ★★

- Has a title at the top displaying the text, "Journey of the Titanic 1912".

Everything at Normal, plus:

- The following ports situated in the correct place on the map: Belfast, Southampton, Cherbourg, Cobh.

Ultra

Swift ★★

- When the screen is touched an image of the Titanic appears.

Everything at Hard, plus:

- Make the image of the Titanic follow a route from Belfast, to Southampton, to Cherbourg, then to Cobh and on to the Atlantic Ocean.

Prerequisites

- Review Lesson 1 & Lesson 2 in the [Learn to Code 3 Teacher Guide](#) and corresponding chapters in the [Swift Playgrounds](#) app.
- Save an image of the Titanic and an image of Northwestern Europe that includes the United Kingdom, Ireland and Northern France in the Camera Roll of your iPad.

Tools

Things to remember from Swift Playgrounds

Learn to Code 3

String—the title at the top of the map.

Coordinate system—used to position objects on the map.

Input—touching the screen to place the ship.

Titanic Project

Point—specific place you will place the port names, represented by an x and y value.

Touch event—the ship appears in the position touched.

Sleep—for pausing the journey of the ship.

Tips

Ideas, Help, etc.

The size of the four quadrant coordinate grid extends from -500 to 500 along the x and y axis. Keep this in mind when placing text on the map. You may have to try a few combinations of coordinates to identify the correct place.

Complete the previous lessons in Learn to Code 2 to understand how to place images at certain points on the coordinate grid.

Tricks

```
// Make the ship move to a port and stop.
```

```
graphic.move(to: Point(x:-70, y: -400), duration: 4)
```

```
sleep(4)
```