1.2 Locate the Coordinate

Intro

Mike is a fan for travel and exploration. To avoid losing the direction and continue his adventure safely while in the wild, Mike needs to learn how to locate his coordinate.
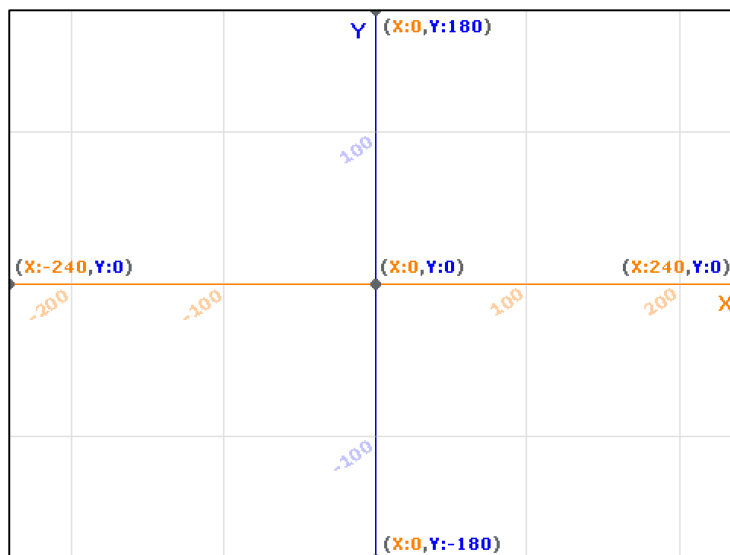
Task

1. Know the concept of coordinate
2. Learn how to move to the designated position

Start Learning

1. Coordinate System

Every sprite has its/her/his own position on the stage. To manage them well, we need to first get familiar with the coordinate system of the stage.
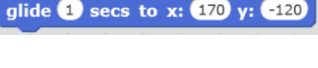

The central coordinate of the stage lies on (0,0), with the horizontal direction as X-axis and vertical direction as Y. Divided by the central coordinate, the right part of the X-axis is positive X-axis (+), left negative X-axis (-); the upper part of the Y-axis divided by the central coordinate is positive Y-axis and the lower part Negative Y-axis.

Knowing the coordinate systems is the essential step of operate the position of all sprites on the stage.
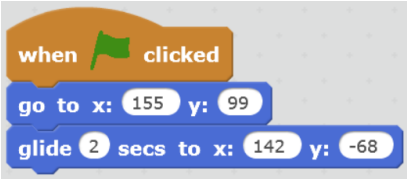
2. Move to A Designated Position

Blocks	Explanation	Example
	Control the operation of the whole program	

go to x: 94 y: -16	Make the sprite to move to a designated coordinate	when clicked / go to x: 94 y: -16
glide 1 secs to x: -13 y: 18	Make the sprite to move to a specified coordination in a certain period of time	go to x: 0 y: 0 / glide 1 secs to x: 170 y: -120

★ Practice:

Mike is not in a good mood today, so let's ask him to walk around the stage for some relaxation. The coordinates of the 4 corners on the stage are: (-240,180), (240,180), (240,-180), (-240,-180). Make sure Mike is not walking at a fast speed.

Achieve

Sprite	Program	Effect
Spaceship	when clicked / go to x: 155 y: 99 / glide 2 secs to x: 142 y: -68	
Mike	when clicked / go to x: -182 y: -101 / glide 3 secs to x: 11 y: -95	

Additional Training

Choose a backdrop, create a new sprite as Mike's friend and let them race with each other. Let's see who will win the race.

Tips

You can use the **Random Number Block** for a race to make it more intense and exciting. Come on and have a try! (Random Number Block: the block will randomly choose a number in the available range)

Homework

Choose one sprite that you like and make it move!