# **GETTING STARTED**

Scratch allows creating games, animations and stories. It is possible to install Scratch as a program on your computer so if you are using a CoderDojo computer or Raspberry Pi you should be able to find Scratch in the programs menu.

Alternatively you can use Scratch directly on the Scratch website at:

(https://scratch.mit.edu/

When you first start scratch there will be one 'Sprite' (or object) on the stage - Scratchy the cat. For this exercise we will not need Scratchy the cat so you can delete him by clicking the 'scissors' icon and then clicking on Scratchy the cat.

#### UPLOAD NEW SPRITES

We will need three images for this exercise:

- Maze
- Fire Engine
- House on Fire

You can locate these images on the internet or ask a CoderDojo mentor for the images. Click the upload button

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to choose images from your computer to upload.

1. Place the three sprites onto the stage as shown in the image below.

SchATCH	- X X Ø
Untitled 🛌	Scripts Costumes Sounds
	Motion Events   Looks Control   Sound Sensing   Pen Operators   Data More Blocks   move 10 steps turn (* 13 degrees   turn (* 13 degrees if key left arrow = pressed? then   point in direction 90* point towards =   go to x: 20 y: 144 if key up arrow = pressed? then   change x by (*) if key down arrow = pressed? then
x: 240 y: -180	glide 1 secs to x: 20 y: -144
Sprites New sprite: V 2 0	change x by 10 set x to 0 change y by 10 set y to 0

2. You may need to change the size of your sprites using the grow

	20
and shrink	
	52
buttons.	

## ADD CODE BLOCKS

1. When you are happy with the position of your sprites on the stage click the Fire Engine sprite and add some code blocks as shown below. You may want to ask a mentor to help you locate the appropriate code blocks.

	-		W 24	7					
fo	rev	er	y. e14						
	if	key	left arr	ow 🔻	pres	sed	y t	hen	
		change	xby	-4					
	if	key change	right a	4	pre	esse	1?	the	,
	if	key	up arro	ow •	pres	sed?	ti	nen	
		change	y by (	4					
	if	key	down a	arrow	<b>p</b> r	esse	d?	the	n
		change	y by (	-4					

Those code blocks will enable the fire engine to move when you press the corresponding arrow key on the keyboard

2. Test your game by clicking the start button

### **ENABLE THE WALLS**

1. You should have noticed that your fire engine can drive through the walls of the maze. Add the code blocks below to your program to control that:

	if (touching color ?) then
	change y by a
	change x by a
	change x by 4
	if (touching color ?) then
	change y by Co
	change x by -4
	if touching color ? then
	change y by
	change y by es
	n couching color 27 then
	change v bv 4

## ADD A WIN MESSAGE

1. If you try playing your game you should notice that now the Fire Engine must stay on the roads. Let's now add a message when the Fire Engine reaches the Fire:

	x: 2 y: -147
	change x by 🕢
	change y by 🖂
-	
	touching house_fire ? then
	say You Win IIIII for 4 secs
L	

2. Test your winning message by clicking the start button



3. Think about how you can improve this game.