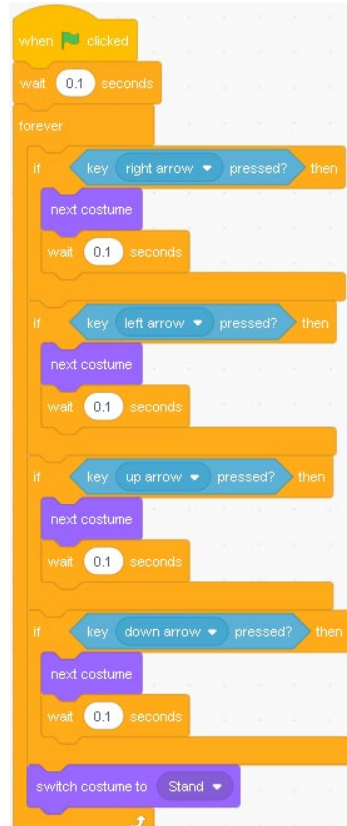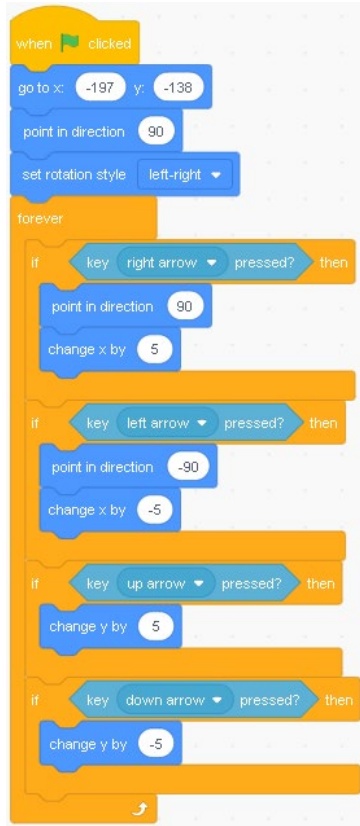# Scratch Programming
Lesson 10
Menu Setup

Presented by Advaspire Team

Review – Movement Animation

Script:

If you want to give animation movement for your cat, you can add a parallel program to do the animation.

It's similar to the movement, just to change what happen if you pressed this and that keys.

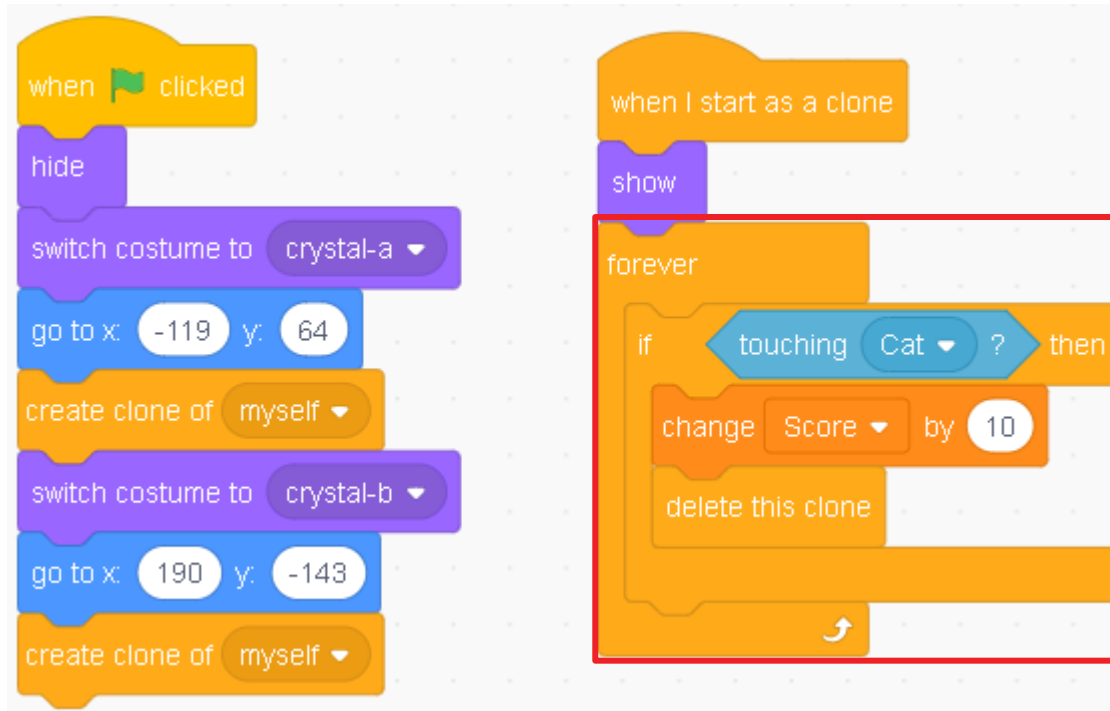# Review – Avoid Going through Wall

Script:

Each of the controls need have an offset distance travelled if touches colour of the wall.

Review - Program Your Crystals
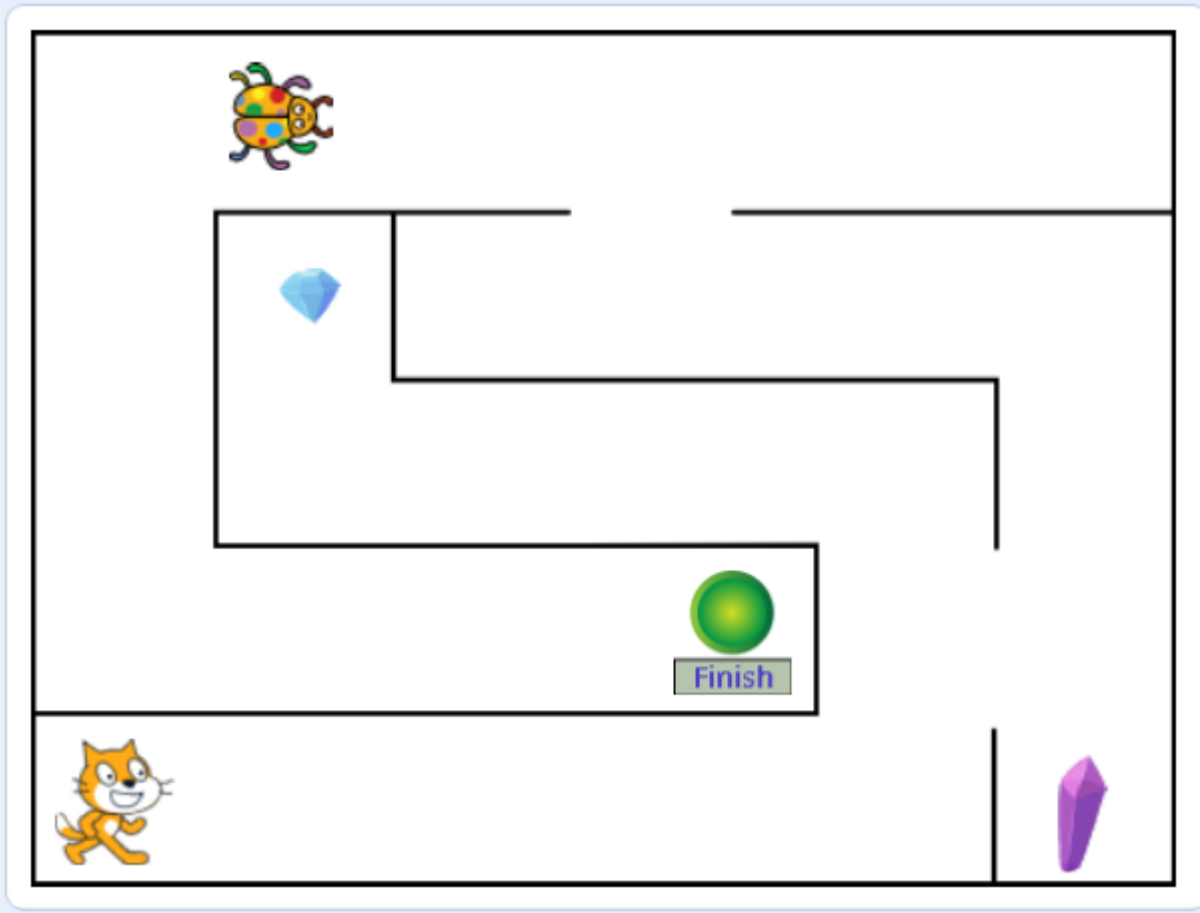
Script:

Then I want to program the clone of the crystal to make the cat get the crystals to collect points.

I will need to set a forever-if loop to detect if it touches the cat, if yes then it will increase the score by 10 points, then remove the crystal from the screen.
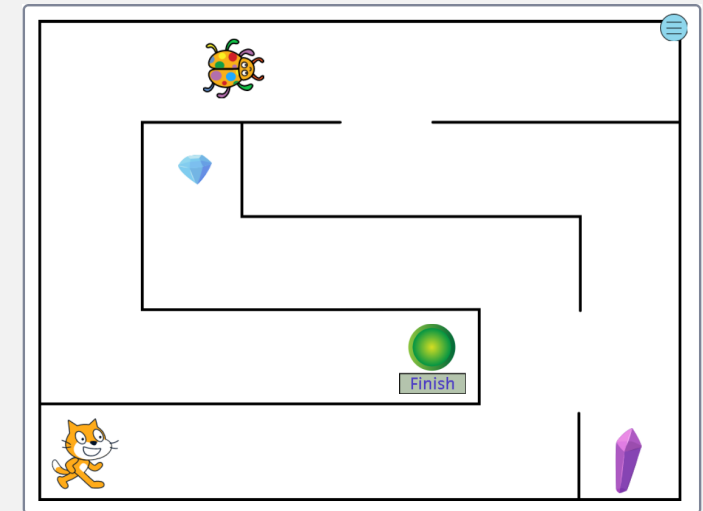
Maze Game

Maze Game – with menu & instruction
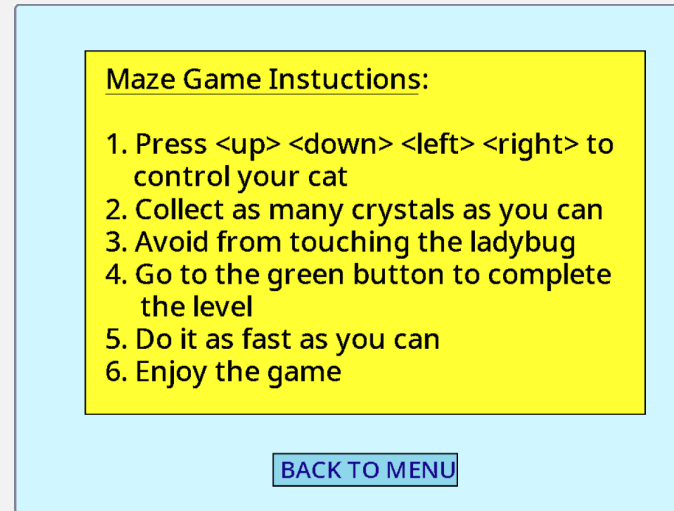
In the game, most likely there will be a menu which let you choose level difficulty, settings, login and etc. But today we will only set the menu for the instructions page.

Continue from last lesson, we will just add in the menu setting and instruction page.

Maze Game – with menu & instruction

"Menu" Page
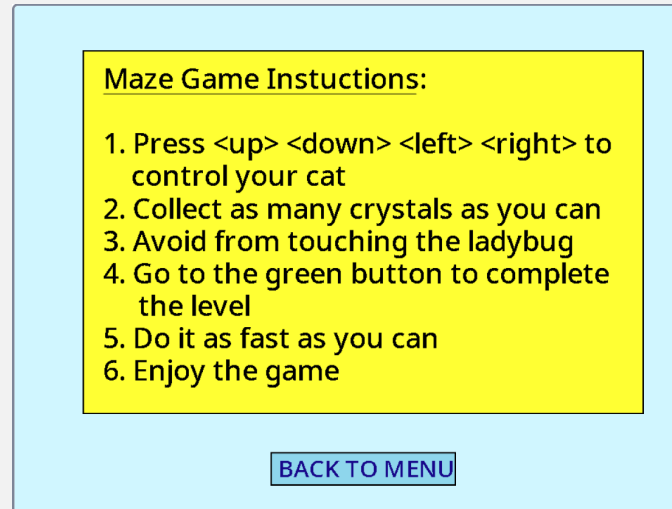
"Instruction" Page
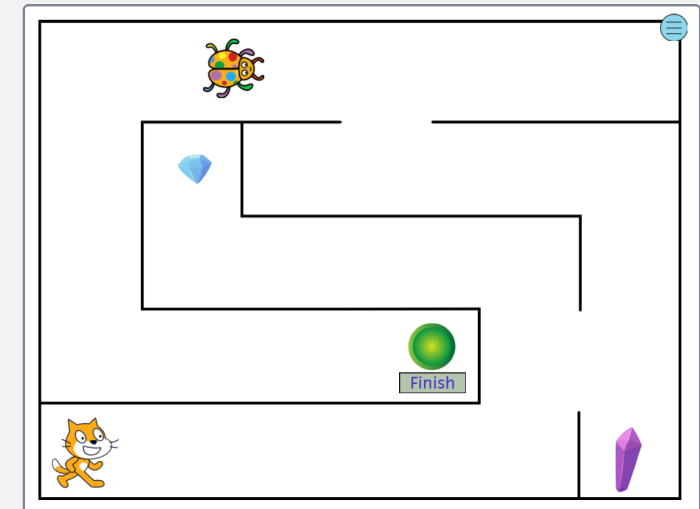
"Play" Page

We will call these pages with different names, and we will use broadcast function to change between these pages.

Start the game only when received "Play"
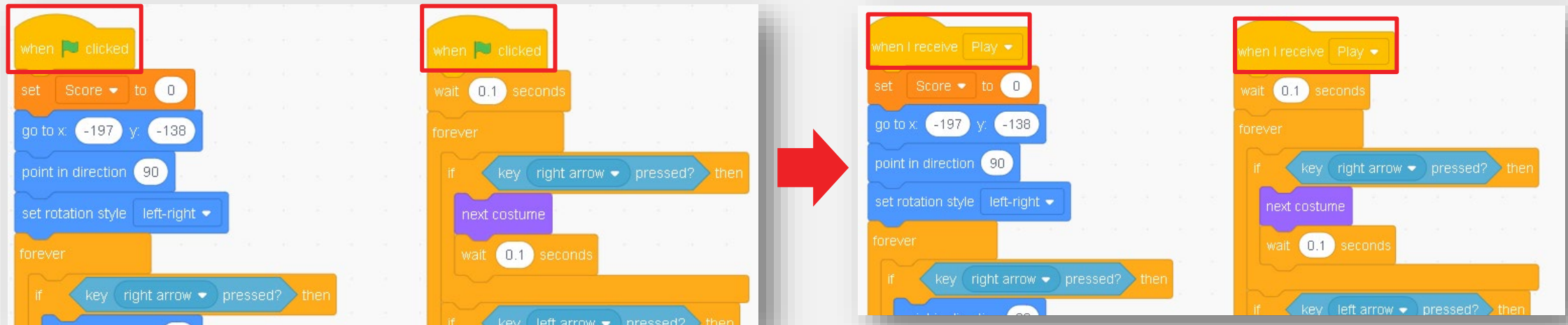
Now we don't want the game to start when we click "Flag", we only start when we received "Play" broadcast.

Add "Show" Block
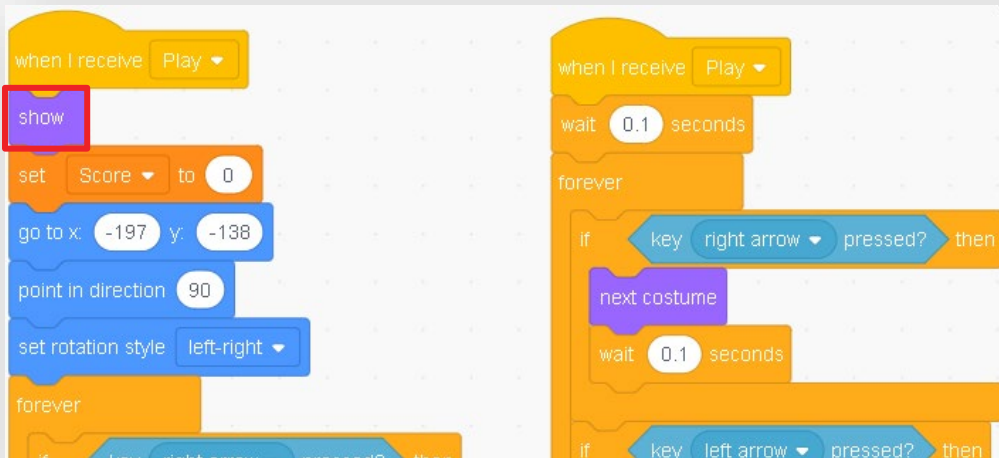
Since once we clicked the "Flag" button, it will start off with the menu page, so we need to hide everything first except for those we want to show in the menu page.

We only show those sprites once "Play" broadcast is received.

Set "Received Play Broadcast" for all Sprites
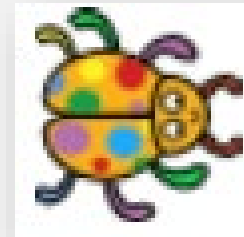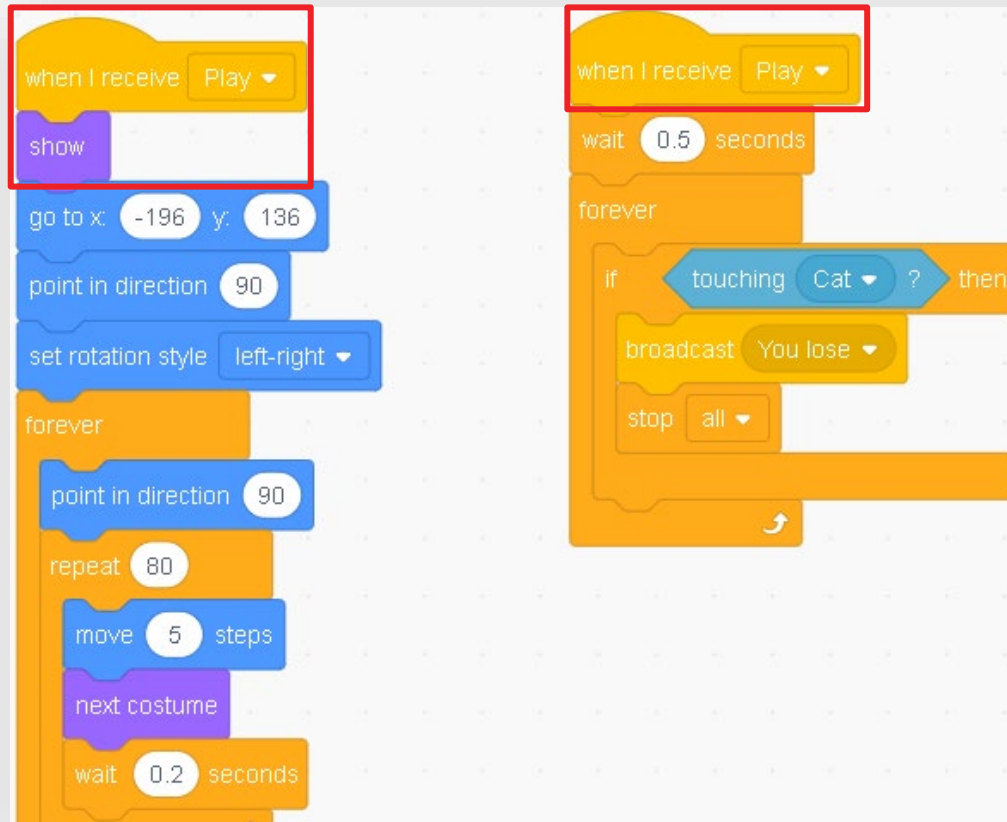
For ladybug's scripts also same, replace "When I receive 'Play'" with "When 'Flag' clicked".

And remember to add a "show" block after it.

Set "Received Play Broadcast" for all Sprites
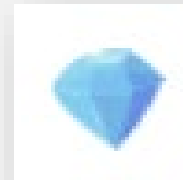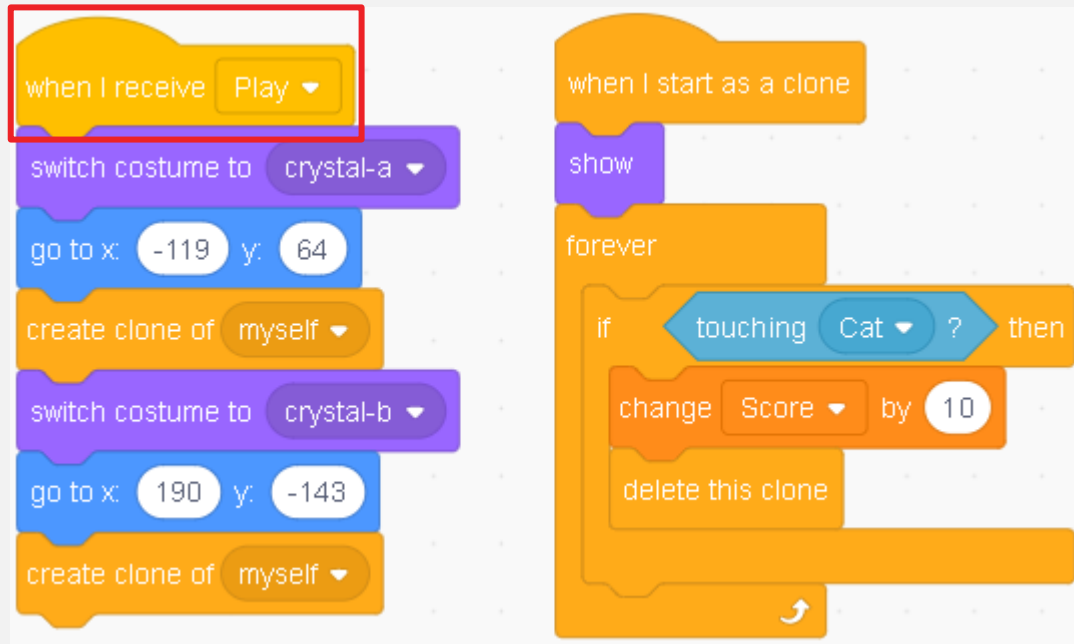
Replace "When I receive 'Play'" with "When 'Flag' clicked" for crystals.

No need to put "show" block for this since it's already have in the clones' function.

Set "Received Play Broadcast" for all Sprites

Replace "**When I receive 'Play'**" with "**When 'Flag' clicked**" for button1.

Add a "**show**" **block for after that.**

Set Up Menu Page

Now we want to set up a menu page before the game start.

There will be a button "Play" for starting the game and "Instructions" button for game guidance.

Then we will have a backdrop, Cat and the word of "Welcome to Maze Game" in the Menu page.

Create Title
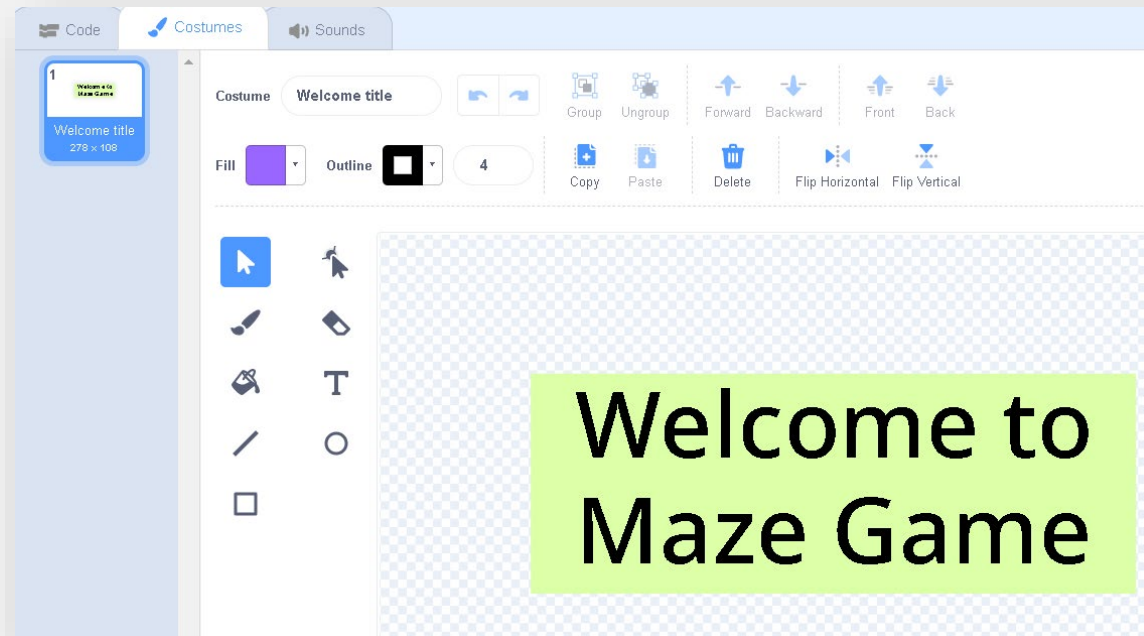
Let's set up a title with the scripts below:
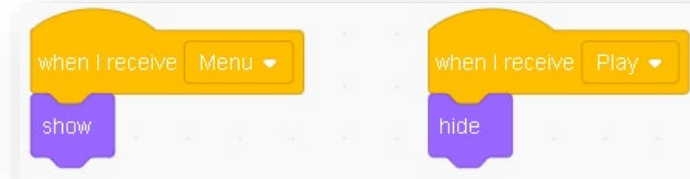
It only shows on Menu page but remains hidden on other pages.

Backdrops
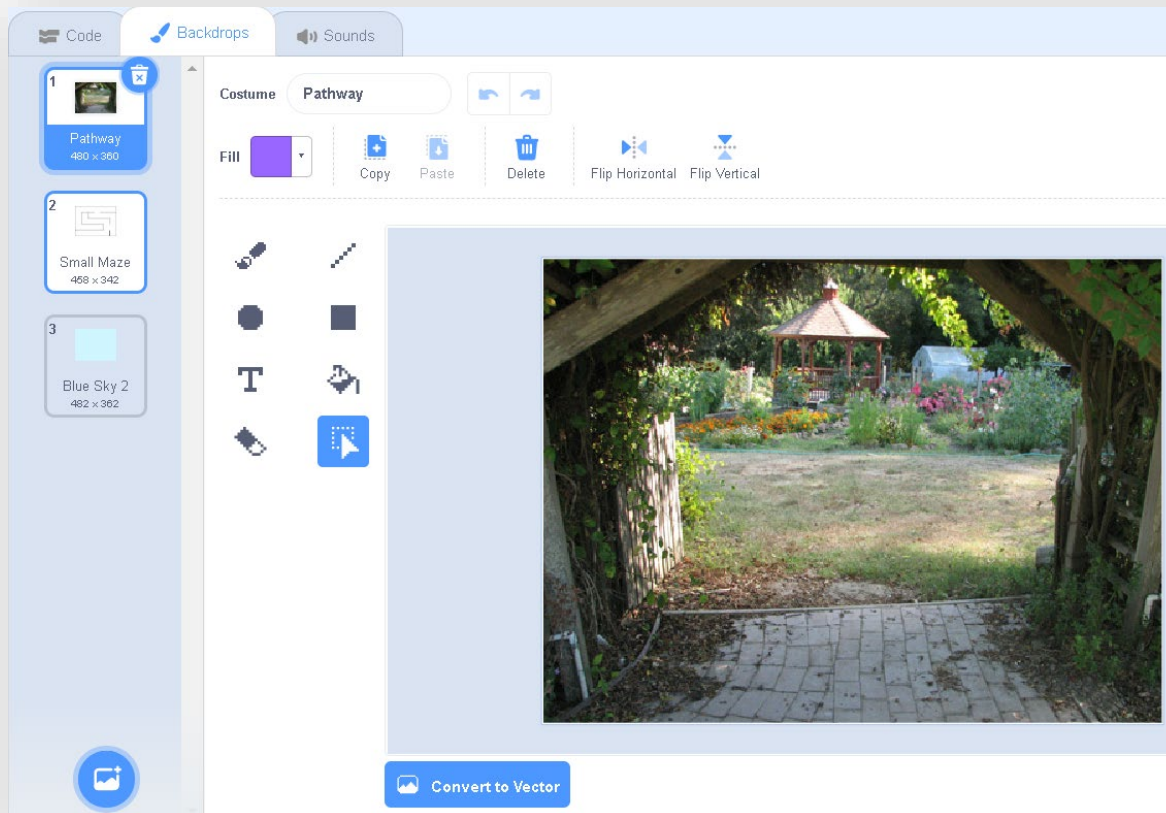
We will have different backdrops in different pages as below:

Menu -> Pathway

Instruction -> Blue Sky 2

Play -> Small Maze

Backdrops - Script
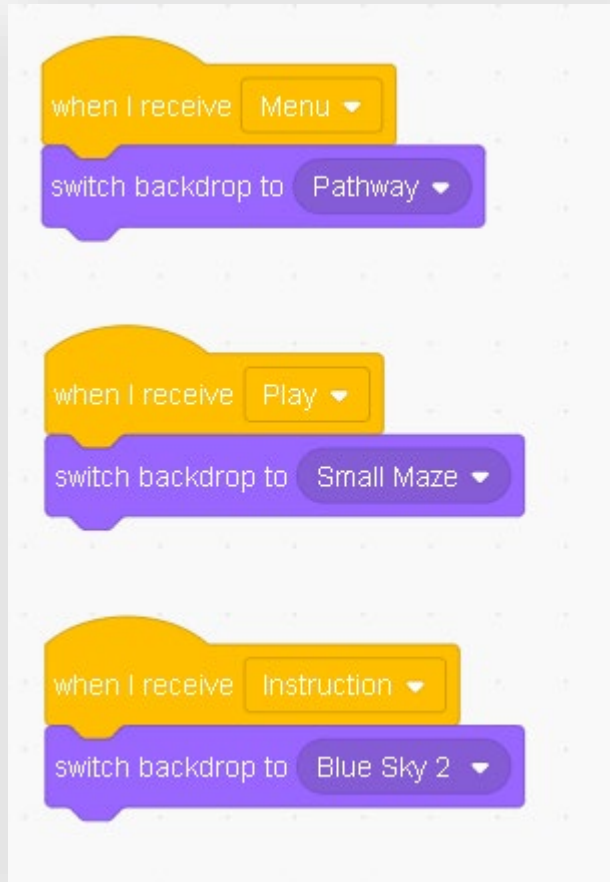
We program the scripts accordingly:

Menu -> Switch Pathway

Instruction -> Switch Blue Sky 2

Play -> Switch Small Maze

Cat & Button

I intend to put a Cat picture in the menu page.

And we will make 2 buttons for going to "Play" page or "Instruction" page.

Cat on Menu Page

Script:
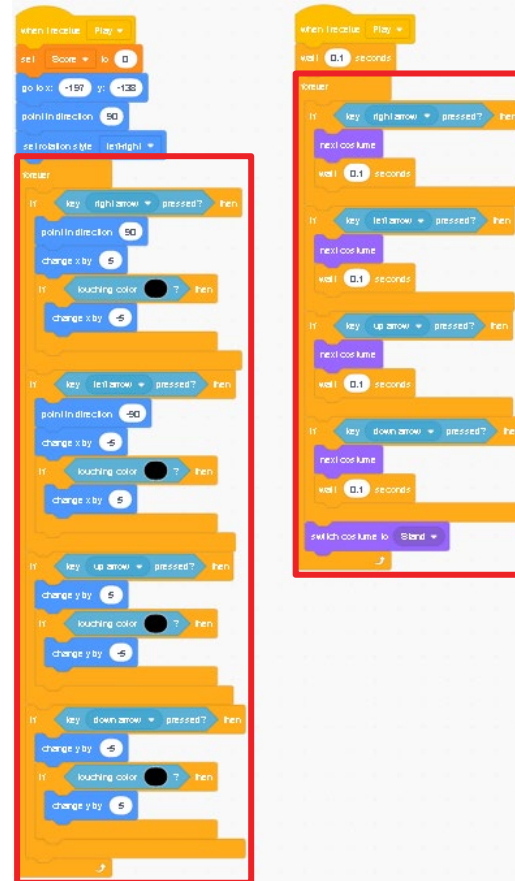
When received Menu broadcast, I will stop other scripts that were running concurrently (the forever-if control loop), so that we can avoid the player from controlling the cat in Menu page.

I make the cat bigger in the menu page (set size to 150%).

Buttons on Menu Page
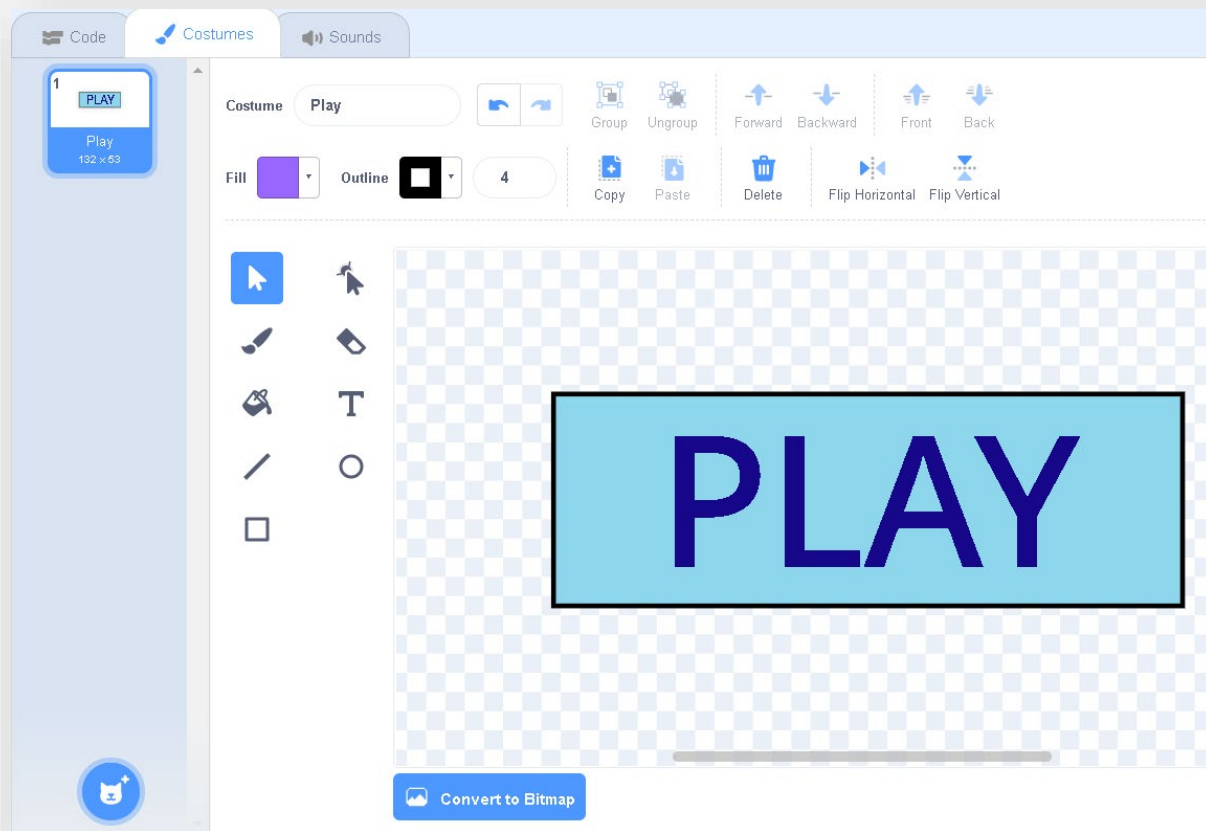
First, draw out a "Play" button for your sprite.

Buttons on Menu Page

Script:
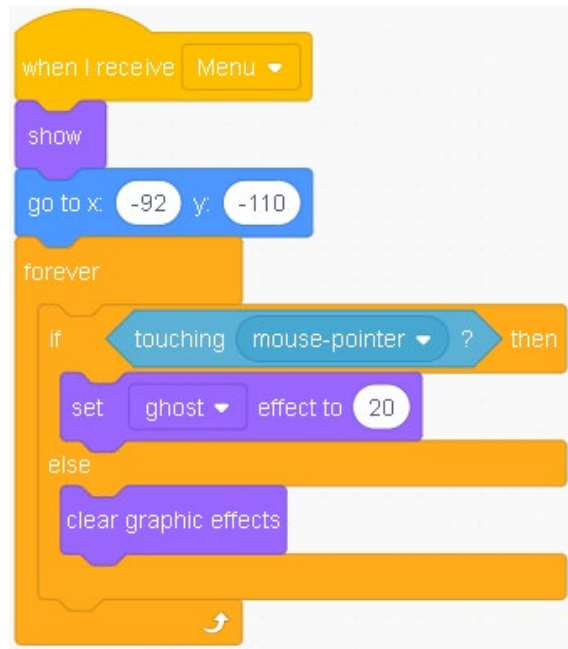
First when receive "Menu", show itself and go to the starting position.

Then we set an if-else statement to make the button transparent if your mouse cursor is hovering on it.

If-else statement:
If touching mouse pointer → "Play" button becomes transparent
If not touching mouse pointer → Remove transparent effect for the button.

Buttons on Menu Page
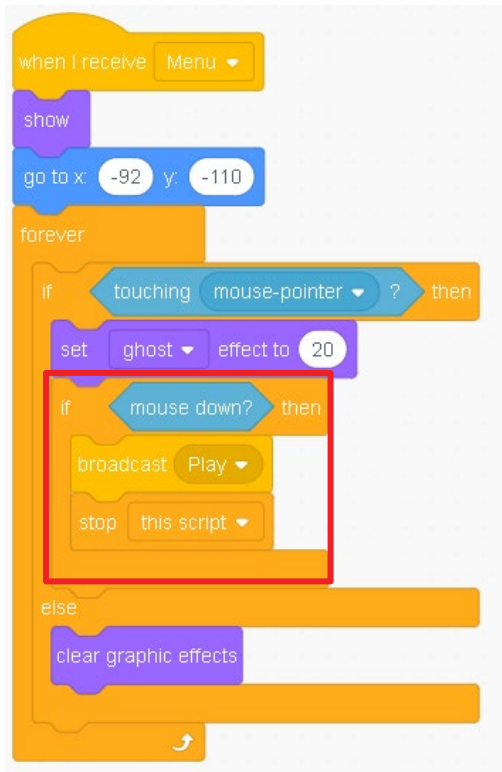
Script:

PLAY

We will broadcast "Play" if our mouse pointer is touching the button and click at the same time.

In this script, "mouse down" mean if we left click our mouse.

Therefore, here the system will check if your mouse pointer is clicking on the button, otherwise it won't happen anything.

And once your clicked on the "Play" button, it will stop this script (cut-off the forever-loop). It means that your "Play" only will function on the "Menu" page.

Everyone Can Be Robotic Master.

Buttons on Menu Page
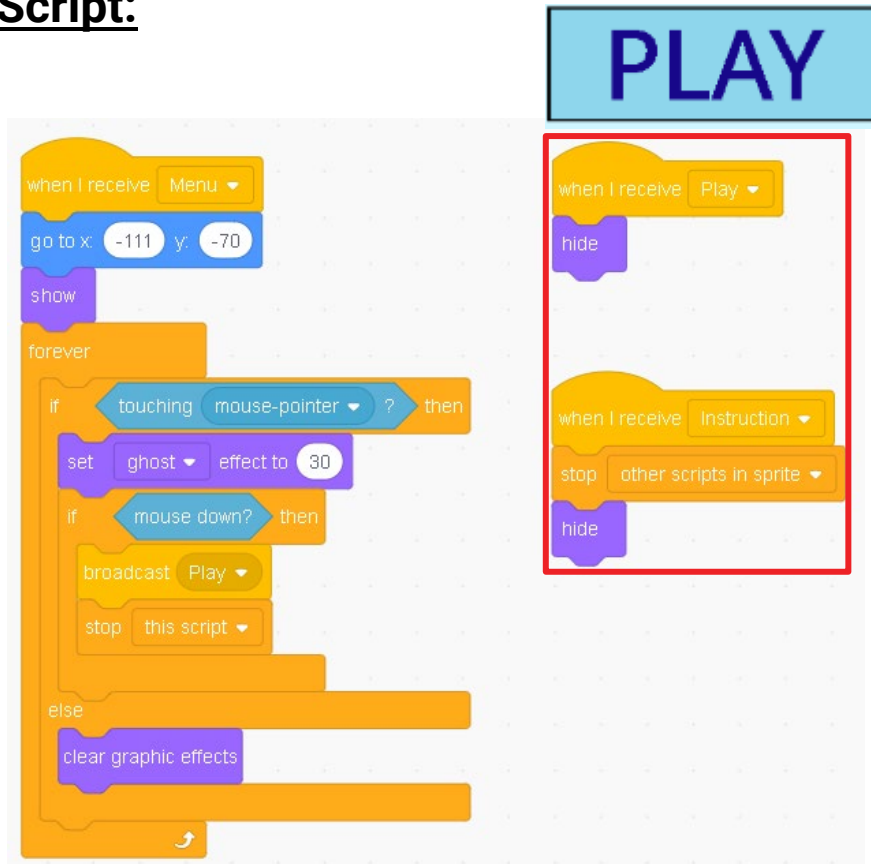
Script:

And remember that we don't want the button to show on the "Play" page and "Instruction" page, so I will call out a script to remain "Play" button hidden on other pages.

You notice that when received "Instruction", I have one "stop other scripts in sprite" but not in "Play" received. It's because when it broadcast "Play", it already stop the forever-loop itself.

If you did not stop the forever-loop in the Instruction page, even if your "Play" button is hidden, but you still can click on it and broadcast the "Play".

You can try it if you want.

Instruction Button

As these 2 buttons are also using same functions but different broadcast, so we can just duplicate the "Play" button and change the word to "Instruction".

Buttons on Menu Page - Instruction

Script:

Instruction


```
when I receive Menu
go to x: 101 y: -65
show
forever
    if touching mouse-pointer ? then
        set ghost effect to 30
        if mouse down? then
            broadcast Instruction
            stop this script
    else
        clear graphic effects
```

```
when I receive Play
stop other scripts in sprite
hide
```

```
when I receive Instruction
hide
```
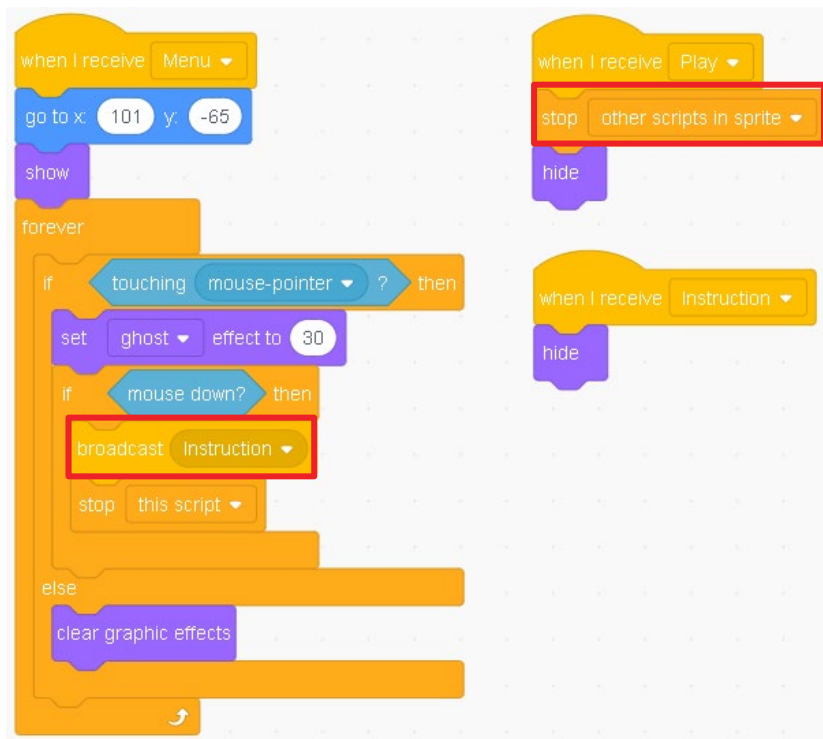
You will just need to change the broadcast and the "stop other scripts in sprite".

Then you're done.

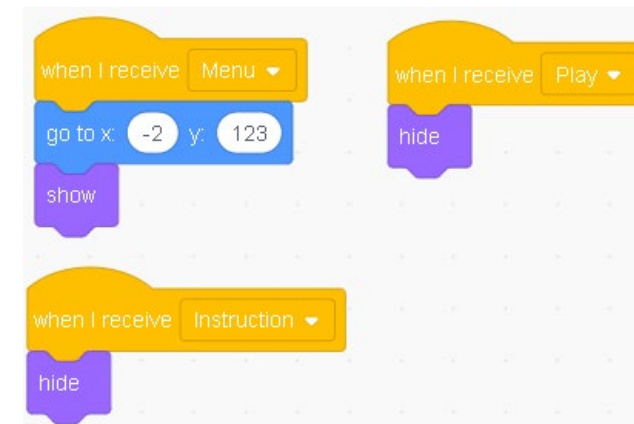# Menu Page - Title

For the title part, it very easy, just make it show on the menu and remain hidden on other pages.

It won't have other functions.

Instruction Page

Maze Game Instuctions:

1. Press <up> <down> <left> <right> to control your cat
2. Collect as many crystals as you can
3. Avoid from touching the ladybug
4. Go to the green button to complete the level
5. Do it as fast as you can
6. Enjoy the game

BACK TO MENU

Now we want to set up our instruction page.

We will only have 2 things on this page, which are instruction manual and the "Back to Menu" button.
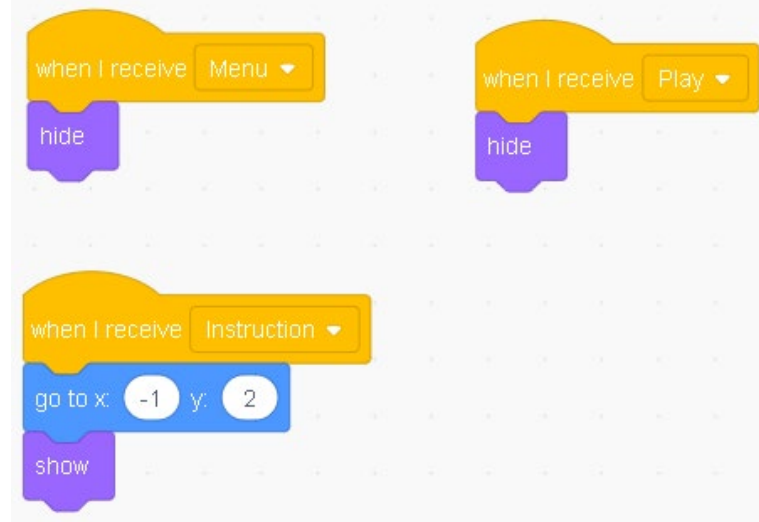
Instruction Page – Instruction Manual

Maze Game Instuctions:

1. Press \<up\> \<down\> \<left\> \<right\> to control your cat
2. Collect as many crystals as you can
3. Avoid from touching the ladybug
4. Go to the green button to complete the level
5. Do it as fast as you can
6. Enjoy the game

BACK TO MENU

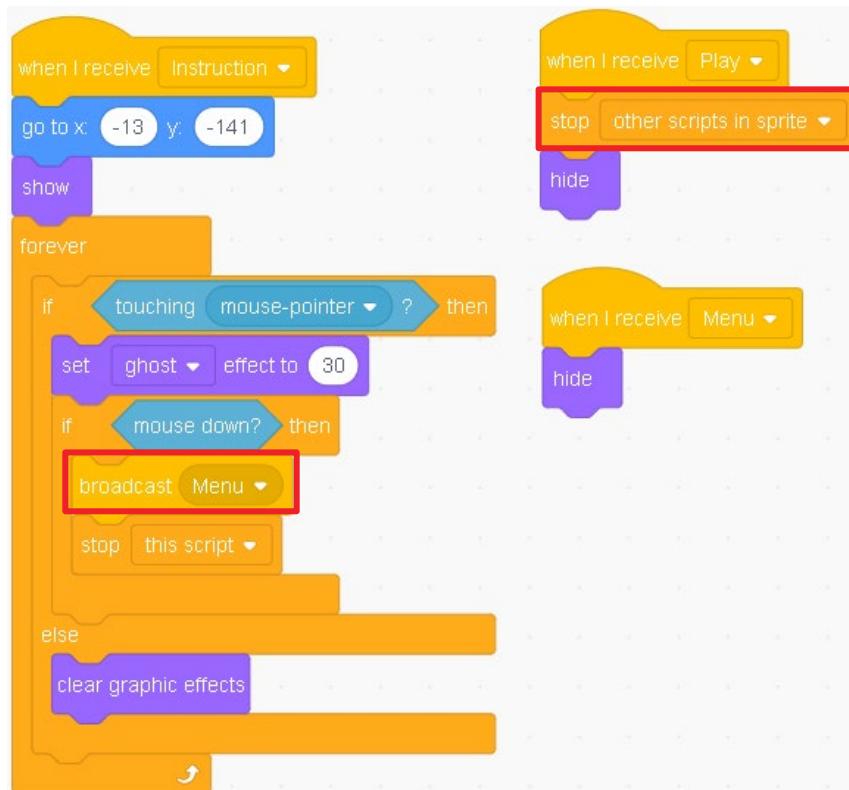**For the instruction manual part, its script is totally same with the "Title" on Menu page.**

Instruction Page – Back to Menu Button

Script:

Back to Menu

when I receive Instruction
go to x: -13 y: -141
show
forever
  if touching mouse-pointer ? then
    set ghost effect to 30
    if mouse down? then
      broadcast Menu
      stop this script
  else
    clear graphic effects

when I receive Play
stop other scripts in sprite
hide

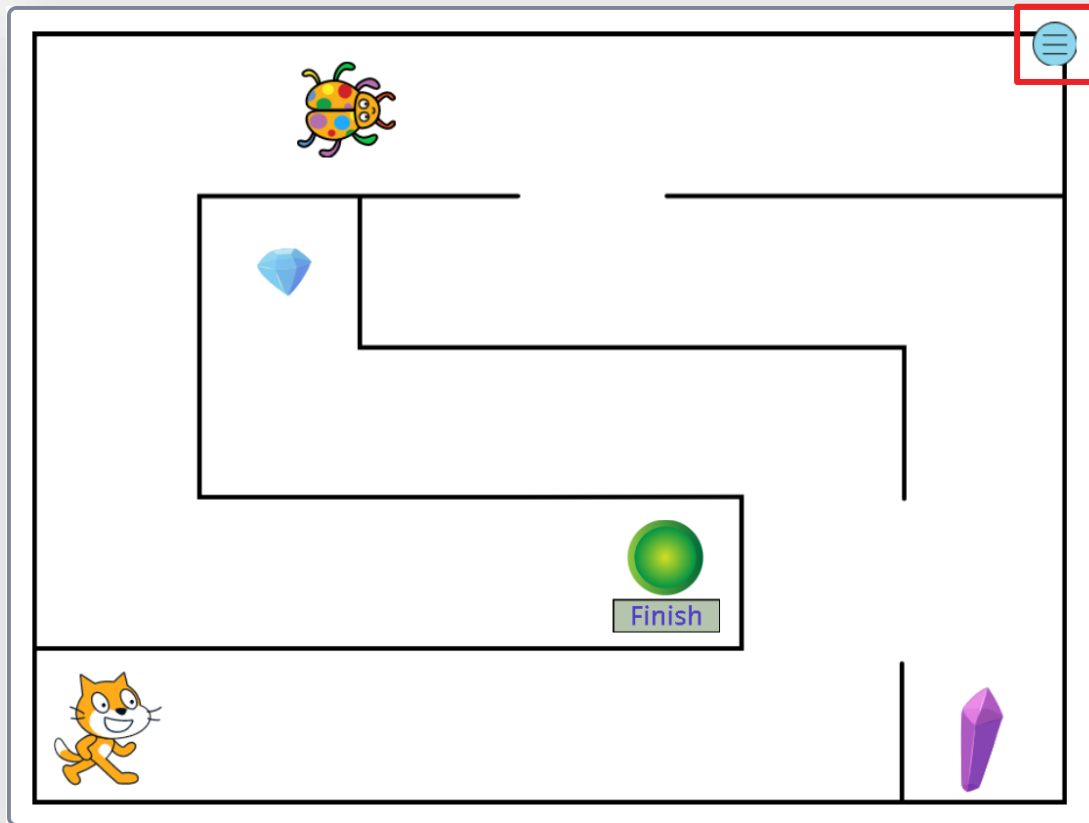when I receive Menu
hide

Duplicate from the "Play" button.

Then change the broadcast and the "stop other scripts in sprite".
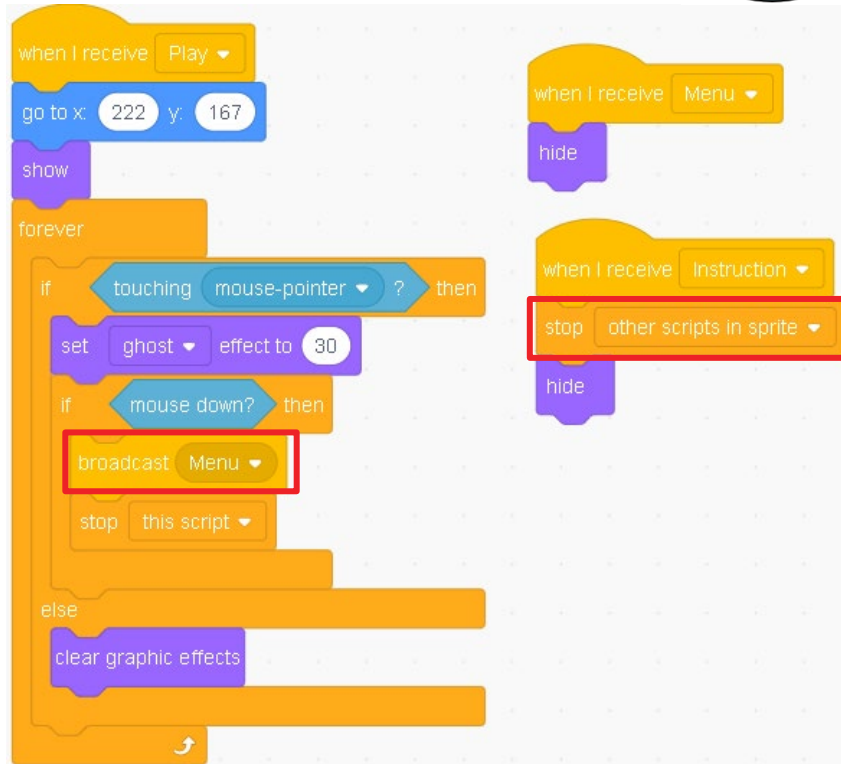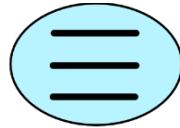
Play Page – Menu Button

I would also like to add a "Menu" button at the top right corner on my Play screen so that I can always go back to the menu if I want.
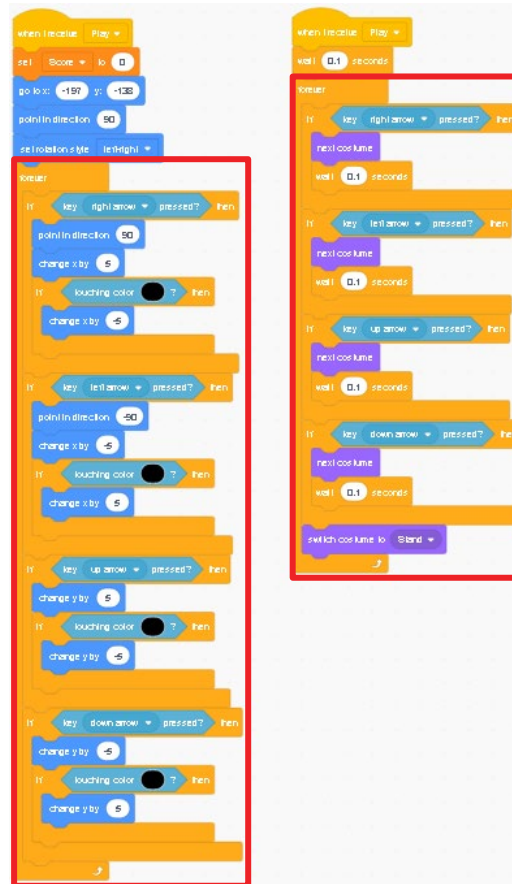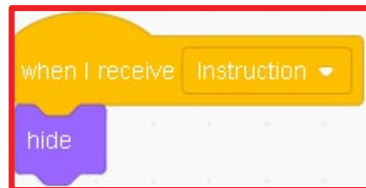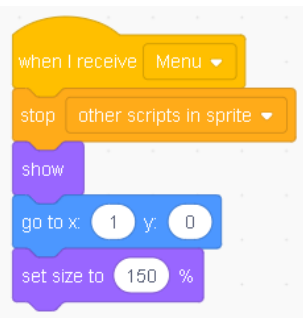
Play Page – Menu Button (Icon)

Script:

The concept is totally same with other button, and we can just duplicate any of the buttons and just change the broadcast and stop other scripts in sprite will do.

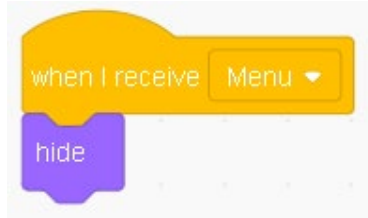# Hide your Cat on Menu & Instruction page

Script:

Make sure to hide your cat on Menu and Instruction page.

Other sprites only need to hide on Menu page.

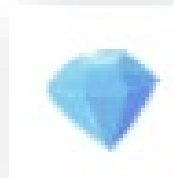# Hide your Sprites on Menu & Instruction pages

Script:

Script:

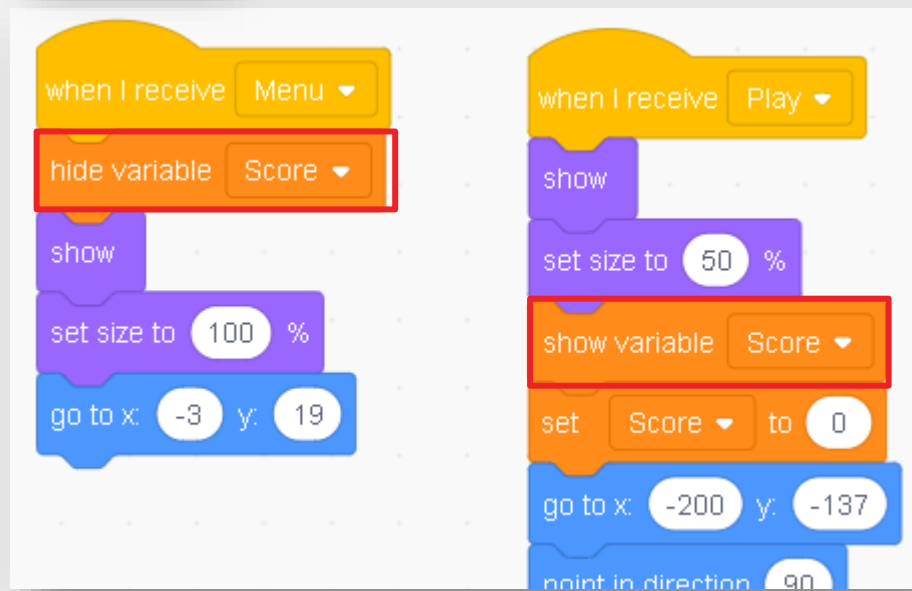
Script:

Hide your sprites on the menu page.

For the crystals, it is using create clone program, so it will need to delete the clone as well on the Menu Page.

Hide & Show Score

As I don't want my score to be shown on the Menu page, I just want it to be shown during the game, So I will add hide variable score after receive Menu broadcast and show once received Play message.
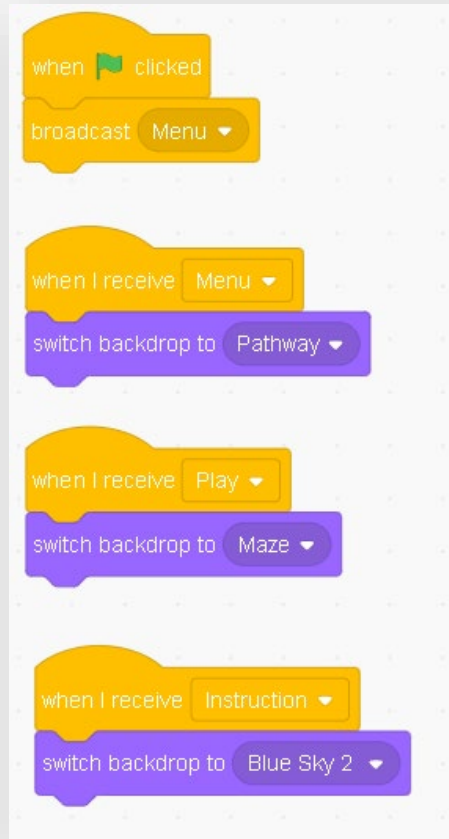
When "Flag" Clicked

Once you click the flag, you will find nothing happen to your game, it just won't run.

It is because you already threw away all the when "flag" is clicked and changed it all to when "Menu" / "Play" / "Instruction" received.

Therefore we need to add at least one when "flag" clicked to broadcast the "Menu" message to all of the sprites to go to the menu page first.

Backdrops – Add the starting Message

We add "Flag" clicked to the backdrop:

"Flag" clicked -> broadcast "Menu" message

Menu -> Switch Pathway

Instruction -> Switch Blue Sky 2

Play -> Switch Small Maze

Run and try your Maze Game

ASSIGNMENT *for*

Lesson 10

L10 – Mission

As you have created 2 levels for your maze in previous lessons, can you do level selection after your press Play on the menu screen?

You will have 5 pages in this mission:
1. Menu page
2. Instruction page
3. Level selection page
4. Level 1
5. Level 2

You can direct message your teacher and ask your question through **Slack Robotene Community** or arrange a **One-to-One Consultation** with your teacher.

Q&A

Any Questions?

Thank you :)