Scratch Tutorials

1. 1st video

**First 3 functionality – control & sensing**

I'll show you how to use these three blocks today – touching, touching color and color is-touching. So

I'm going to make the fish swim to the right. We know that the fish needs to move, so I'll put in this code to show that the fish is going to continuously move five steps when the flag is click. Now let's try it out.

This isn't working for me. Since it's going past the edge of the screen. The first sensing block will help to fix this. So I'm going to go to sensing, and I'll drag out the block. I'll use the drop down menu to select edge because we want to check if the sprite is on the edge of the screen.

And now, instead of the forever block, I'm going to use a repeat until I'll repeat until it's touching edge. So it's going to keep on moving five steps until it's touching the edge. So now we'll try it out.

So we're going to try the mouse pointer. So now when I click the green flag and I press my mouse pointer over the fish, it stops it. Now, if I didn't want the fish to pass through the coral, I can use the touching color block underneath the touching mouse pointer block instead.

Now, to get the color of the coral, I press on this icon down here, and then I use the magnifier to select the color I want, which is the pink coral. Not press the cream flag, and it works. The fish stops the coral like it's an obstacle.

This can be helpful in any scenes you make when you don't want your sprites to disregard their surroundings by going right through them, and therefore makes your scene a little more realistic. Now, what if I wanted my fish to be able to swim its way through the coral, but maybe its fin could get stuck?

So I'll use this color is touching color block, and I'll select first, you'll select the color on your sprite. So I'm going to select this black color on its fin, and I'll do the same thing, but I'm going to select the color of the coral.

Now I'm going to make the fish say I'm stuck to make a chain reaction of events and to make this look more like the beginning of a story, drag this fish over, and then I'm going to press the green flag, and it works.

We've made the beginning of a story and learn more about the touching blocks. And sensing to go over what we did in this video. First we use the touching block. This block checks if it's touching either the mouse pointer edge or another sprite.

Then we use the touching color block. This block checks whether the sprite is touching a specific color. A common way of using this block is so your sprite doesn't collide or pass through objects. Last, we use the color is touching block.

This block checks whether the first color a color on your sprite is touching another color. I hope this video was helpful, and I hope you can use these blocks in future scratch projects. Thank you for watching.

1. 2nd video [Control Part – 1]

So let's begin. First we will open the scratch and then we will click on control block category. So what is the use of control block? control block used to control the actions of sprite as well as background. So we will discuss these blocks even under the category control block one by one. So first one is Wait one second. So why do we need to give Wait, see, wait means it will wait for a specific number of seconds to execute the next block. It is basically used to give a gap between two blocks. For example, like in motion if I'm giving move 10 steps and then I'm giving the talk of two seconds and after that I'm doing okay see I'm using say hello and when I click on move 10 steps so it will move 10 steps then it should wait for two seconds and after two seconds it should say hello, like see? [Wait to show the action of cat]. It waited and then it said Hello. So, weight is used to give gap between two blocks so it will wait for two seconds before executing the next block. I hope it is clear. Okay, the next is repeat 10 So this block repeat is used to repeat the blocks inside the container. Suppose putting move 10 steps, then making it one step. And then again I'm using turn block of motion block category. Turn also I'm giving one degree and repeat I'm using 360 time, so repeat means it will repeat these two blocks 360 times or the specified number of time whatever you have given for that only move and turn. Say I click on repeat. See [show car rotating], these two blocks will be repeated 360 times. So, I hope it is clear repeat.

The next is forever. To repeat block is used to repeat for a specific number of time and forever needs over and over. It will not stop. The same block if I put inside forever block so it will keep on rotating in case of repeat extort after 360 time, but in case of forever, it will keep on rotating. Okay, I'm using the other one. I will move it and then I'm using “If on edge bounce” okay now see [show the cat moving] will keep on moving. And if I want to change x rotation, then I will use another block. If I want to change its rotation style I can get set rotation style left, right. See, so forever. We'll run the blocks present inside it over and over will not stop until you click on stop button.

Okay, let's see the next one. Next is if then. In this we give the condition if condition is true, then execute the block inside this container. Like what kind of condition okay I'm using x position I want to use x position, first I'm using the operator to check the condition, I've chosen less than condition and I'm applying the condition if x position less than. Now if you see the straight position x coordinate, this is 127. If I apply the condition if x less than 50 then it should move 10 steps. Now if I see the position of sprite, the X position is around 132. So if 132 is less than 50 No condition will be false. So it should not move 10 steps. So let's see. [Wait for output] See, nothing happened because the condition is false. Now if I change the condition, if I say if x is less than 200 Now the condition will become true because it is 137 around. So if I click on that it will move 10 steps. [Wait for output]. I hope you have noticed I'm increasing the steps by 50 and again I am running. Now it is 122 which is less than 200 so condition is true. So it should move 50 steps. Fine. So this is the block where condition will be checked if condition is true then only the blocks inside this container will be executed otherwise nothing will be happened. The next is