MoleMash Extension Tutorial

Introduction

- We are going to alter **MoleMash** in a way that varies the speed of the mole in response to how well the player is doing.
- To do this, we are going to be changing the MoleTimer.TimeInterval property depending on the individuals score.

Goals

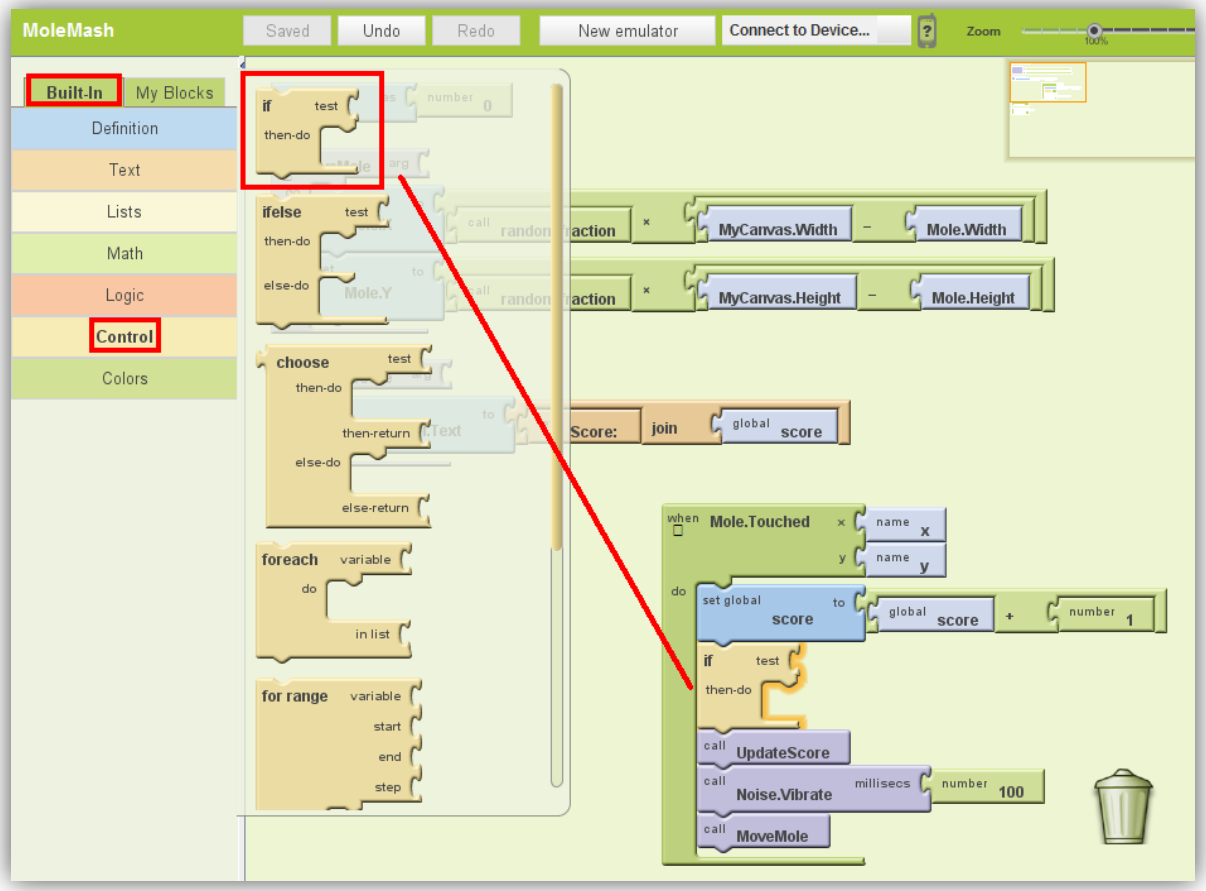
- To learn about:
  - The **TimeInterval** property
  - Conditional Logic (if you did not complete the HelloPurr extension tutorial)

Conditional Logic

Under **Built-In**, select the **Control** drawer and drag and drop an if test then-do block into the **do** section of the when Mole.Touched block.

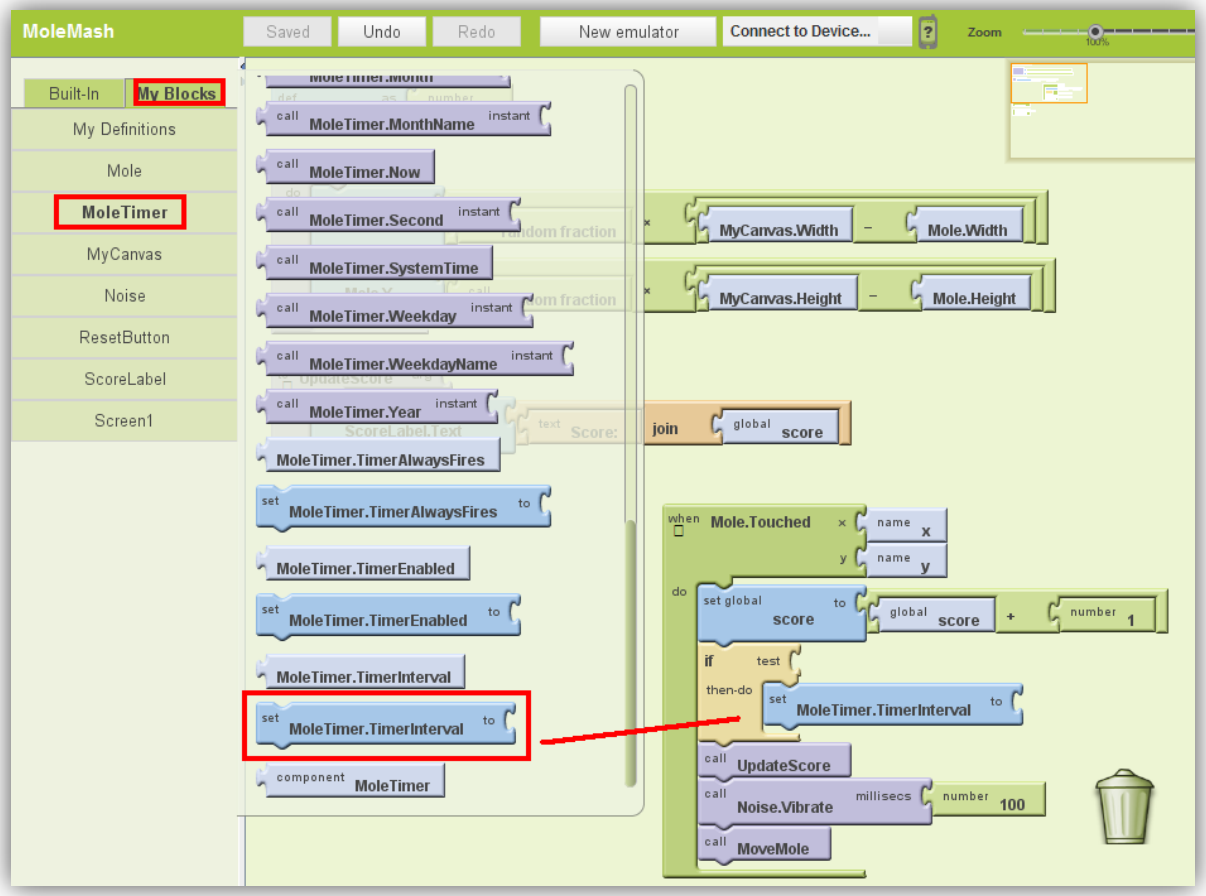
If test then-do blocks enable us to tell our app to only perform certain actions under specified conditions.

In our case, we want the speed of the mole to vary based on the player's score.



Mole Speed

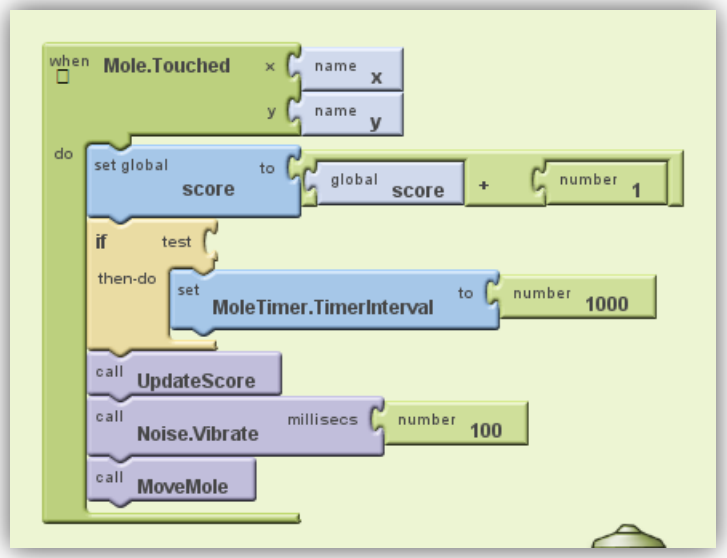
Under **My Blocks**, select the **MoleTimer** drawer and drag and drop the set MoleTimer.TimeInterval to block inside the **then-do** section of the if test then-do block.



Mole Speed

Set the MoleTimer.TimeInterval to block to 1000.

This means that every 1 second (1000 milliseconds), the mole will move.



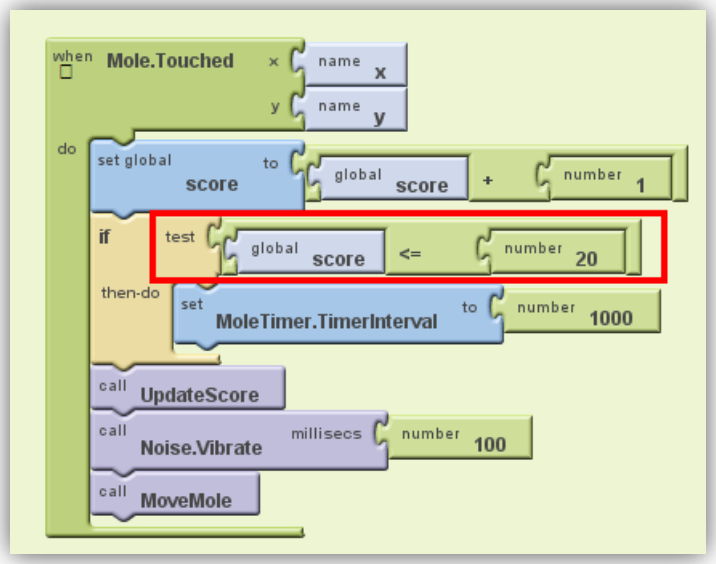
Conditional Logic

Our last step is to create our test case.

We want the mole to move every second, only if the score is less than less than or equal to 20.

Create the blocks as shown to the right.

→ → → → → → → → →



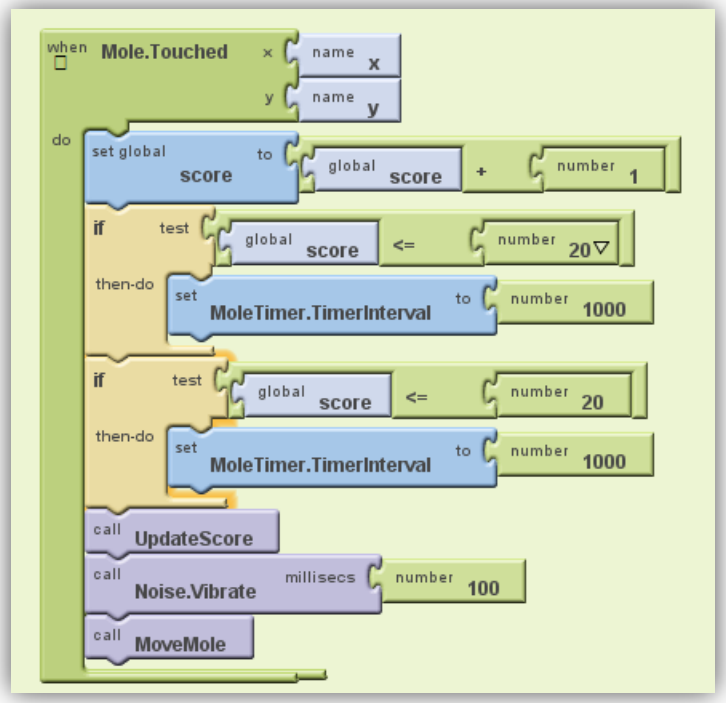
Mole Speed

Now that we have the logic behind changing the mole's speed, we can simply copy and paste our existing blocks and change their properties to whatever we desire.

Select the if test then-do block and press **ctrl + c** on your keyboard.

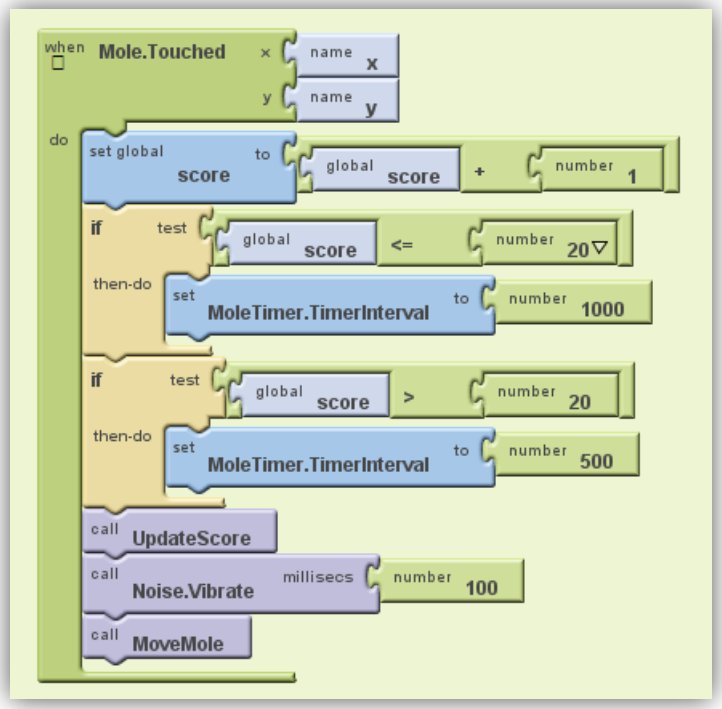
Next, press **ctrl + v** on your keyboard and a copy of the if test then-do block will appear.

Move it below the previous if test then-do block.



Mole Speed

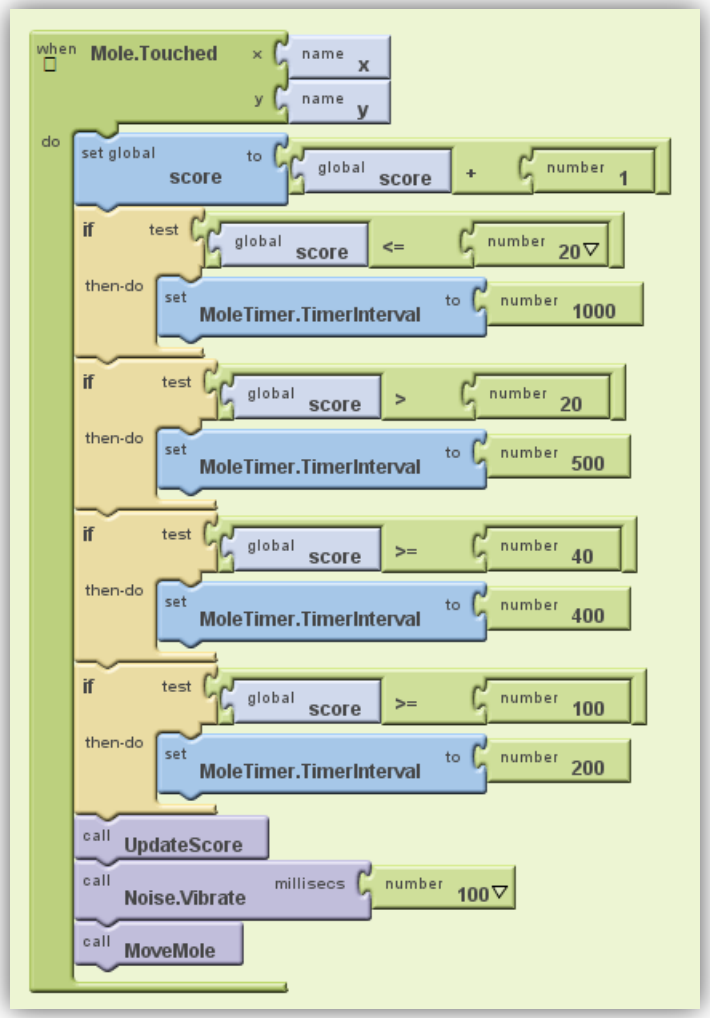
For your second if test then-do block, alter the blocks so if the score is greater than 20, the mole speed will be set to 500.



Mole Speed

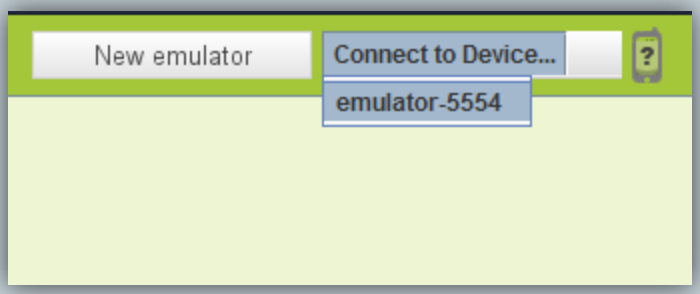
Repeat this same process so the mole's speed continues to change as the player reaches certain scores.

→ → → → → → → → →



Final Note

- For the changes you just made to work correctly, you will need to re-connect your emulator.
- To re-connect your emulator, click **Connect to Device…** and then select the emulator from the dropdown list.



Review

- The **TimerInterval** property allows us to change the speed of the mole's movements.
- Using the if test then-do block allows your app to perform specified actions if certain conditions are true.

Challenges

- Change the image of the sprite used.
- Add looping background music.
  - Hint: You will need to create another **Clock** component in the *Design* viewer and set it's **TimerInterval** 0. Then, in the **Blocks Editor**, add the necessary blocks.
- When the mole is hit, play a sound.

Challenges

- Keep track of when the player hits the mole and when the player misses the mole, and show a score with both hits and misses.
- Hints:
  - You'll need to define touched handlers both for **Mole**, same as now, and for **MyCanvas**.
  - One subtle issue, if the player touches the mole, does that also count as a touch for the Canvas? The answer is yes. Both touch events will register.
  - To solve this problem, every time the mole is touched, you will need to subtract 1 from the misses.