



Wildcat Code

HOT POTATO

LEARNING TOPICS:

Variables

Logic Statements

If Then, Else Statements

Math Statements

Loops, While Loops

MATERIALS:

Micro:bit

Computer

Internet Access

INTRODUCTION:

In this game, you will start a timer with a random countdown of a number of seconds. When the timer is off; the game is over and whoever is holding the potato has lost!

Before starting with the activity, have students answer the introduction questions below:

- Does anyone remember what the shake sensor on the Micro:bit is called? A:
Accelerometer

VOCAB:

Next, let's discuss some Micro:bit and computer science terminology:

Program – An algorithm that has been coded into something that can be run by a machine.

If, then, else Statements – Compares two or more sets of data and test them for a result. If results are true, then do (what you make the program do if results are true), else do (what you make the program do if results are false).

Variable – A value that can be changed and stores information that can be accessed.

Bug – Part of a program that does not work correctly.

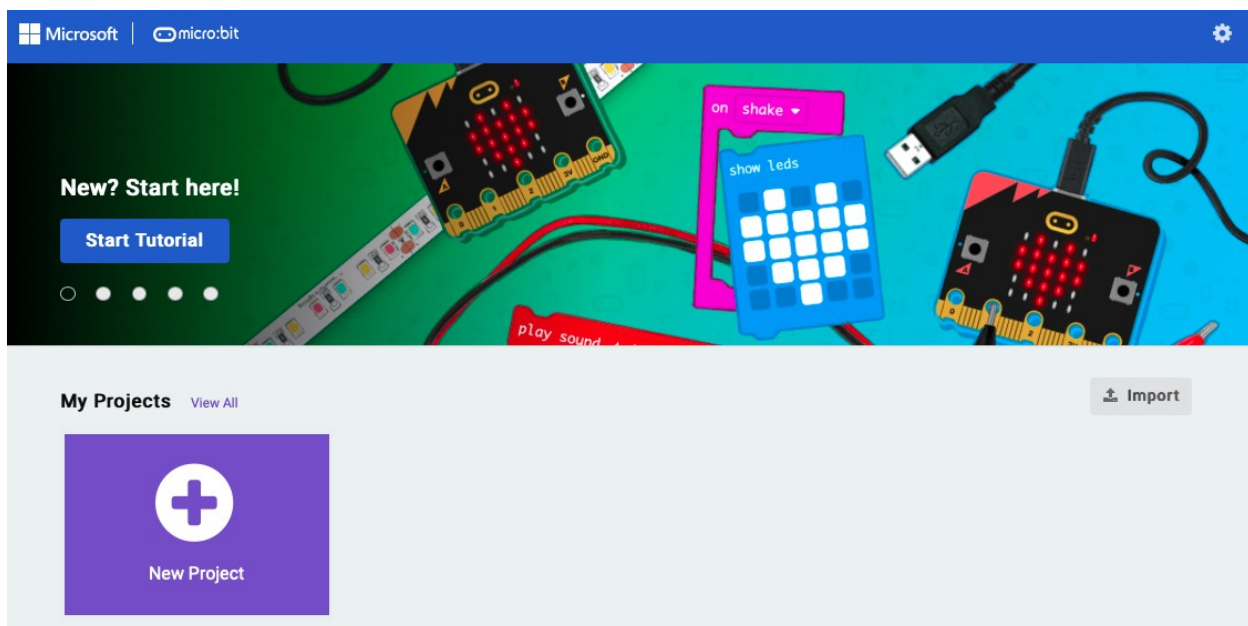
Debugging – Finding and fixing errors in a program.

Sequencing – The order in which a computer executes commands.

INSTRUCTIONAL CONTENT:

Let's get started! First, click or type the following link "<https://makecode.microbit.org/>" which will take you to today's activity on the Micro:bit website.

Review both the Micro:bits and the MakeCode tool with students if needed.



Once students have their MakeCode program loaded, have students click on “**New Project**”. Name the project “Hot Potato”.

STEP 1

Add an event to run code when button A is pressed



STEP 2

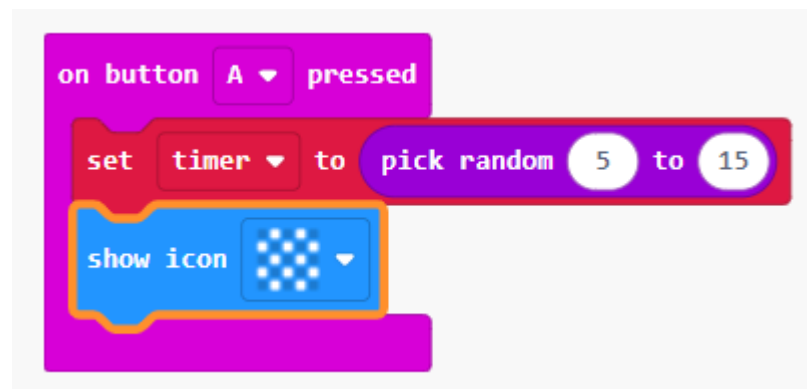
Make a timer variable and set it to a random value between 5 and 15

The value of **timer** represents the number of seconds left before someone is caught holding the potato.



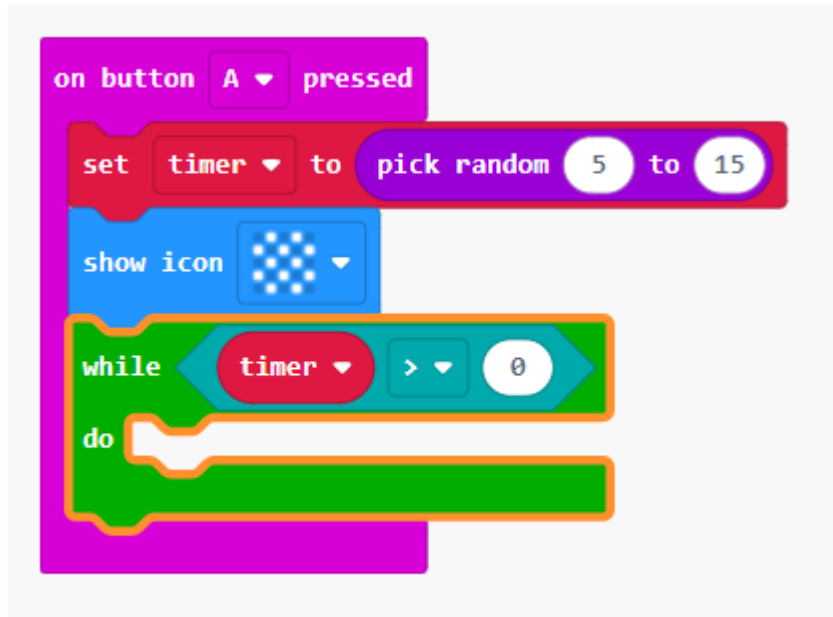
STEP 3

Add code to **show** that the game started



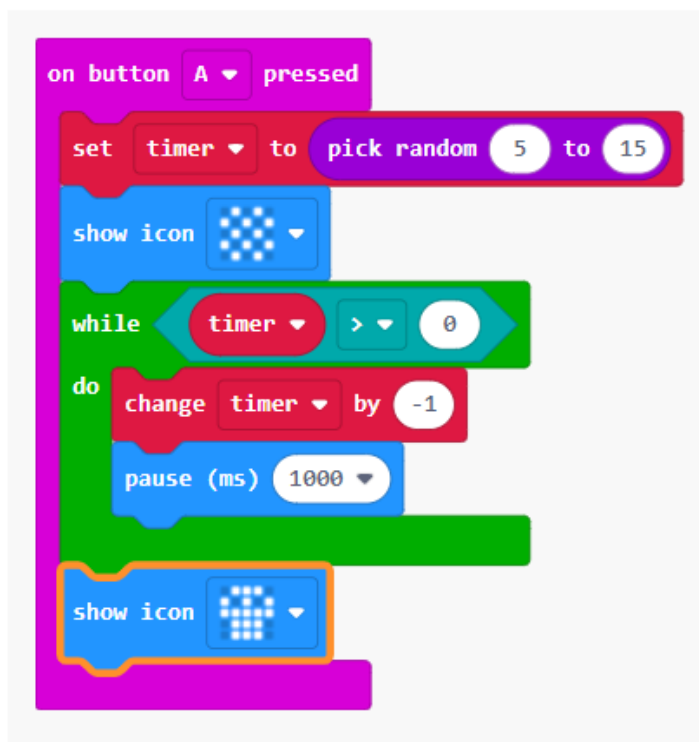
STEP 4

Put in a loop repeat code **while timer is positive**. When timer is negative, the game is over.



STEP 6

After the while loop is done, add code to show that the game is over.



LEARNING OUTCOMES:

By completing this activity, you will learn:

- Variables
- Logic Statements
- Loops

CLOSURE:

Reflect with students on the following questions:

- How could you modify the program to make it your own? What changes would you make?

REFERENCES:

Micro:bit Makecode. (n.d.). Retrieved September 16, 2021, from <https://makecode.microbit.org/>