Steps Tracker

Project Overview

Step counter project that tracks the steps by the shaking of micro:bit. Will also show the number of steps tracked. You can get a cool flashing heart effect for every 20 steps. We are using Blocks from Microsoft MakeCode editor to program. Easy and simple.

Goals Addressed

- **Goal 1. Logical Systems**
    - Program the Micro:bit to using Blocks from Microsoft MakeCode editor to track the number of steps
- **Goal 15. Product Prototyping**
    - Build a functional prototype for steps tracking

Why It's Fun and useful

- **Visual Feedback:** The micro:bit's LED display makes it fun to see the number of steps visually displayed and track progress in real-time.
- **Simple and Creative:** Using Microsoft MakeCode's Blocks editor is beginner-friendly and lets users unleash their creativity without getting bogged down by complex coding.
- **Customizable:** Users can personalize the project, such as changing the animation, step threshold for rewards, or adding sounds, making it more engaging.

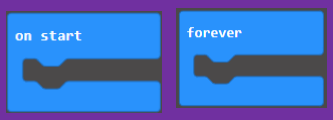
Steps to Create the Environment Exploration Tool

Step 1: Assemble Your Tools

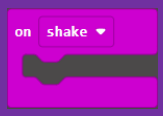
- A Micro:bit.
- A battery pack for portability.
- Access to the or Python editor.

Step 2: Code Your Micro:bit

1. **We need to set our blocks:**
   from Basic:

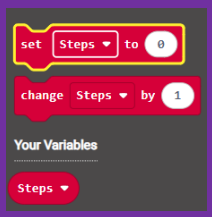


   from Input :

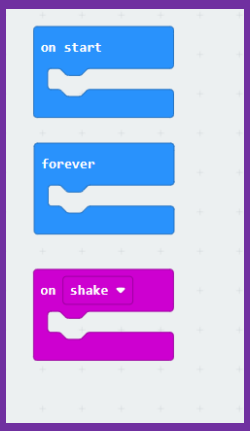


   from Variables we need to set a new variable by click on Make a Variable... called "Steps" then click Ok

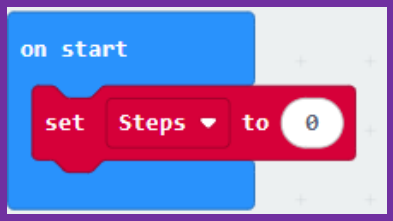
   Now New Block appears:

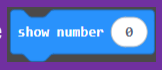


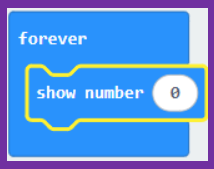
   Now The Blocks space should be like this:



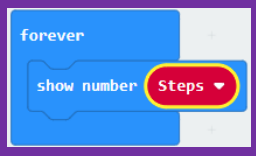
2. **Set the Steps by Zero**:
From Variables Chose  the drag it into [On Start] Block to be like this:



3. **Show the number in the LEDs:**
From Basic Chose  then drag it into [Forever] Block to be like this

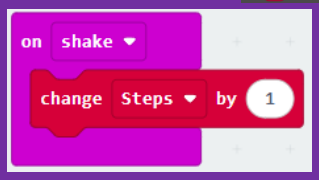


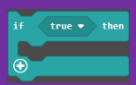
and From Variables chose  then drag it into the Zero inside [Show Number] Block to be like this:

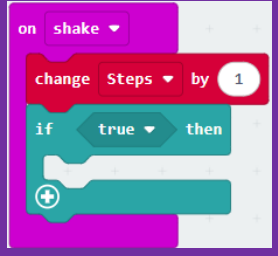


4. **Setting up the shacking command:**

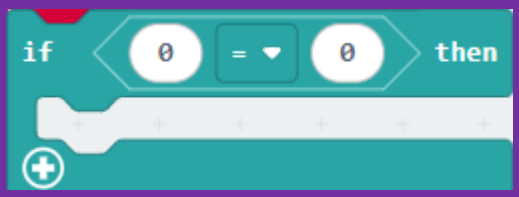
From Variables chose  drag it into [Shack] Blockto be like this:

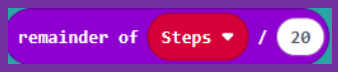
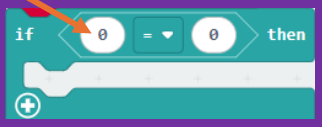


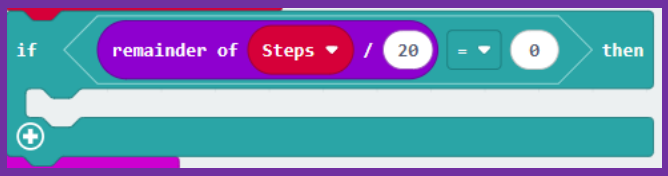
From Logic chose  drag it into [Shake] Block, under  like this:

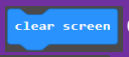
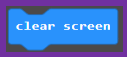
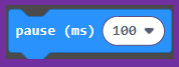
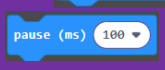
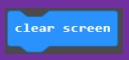


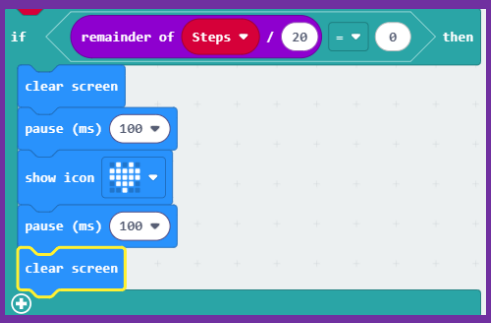
From Logic chose  drag it into “true”  to be like this:



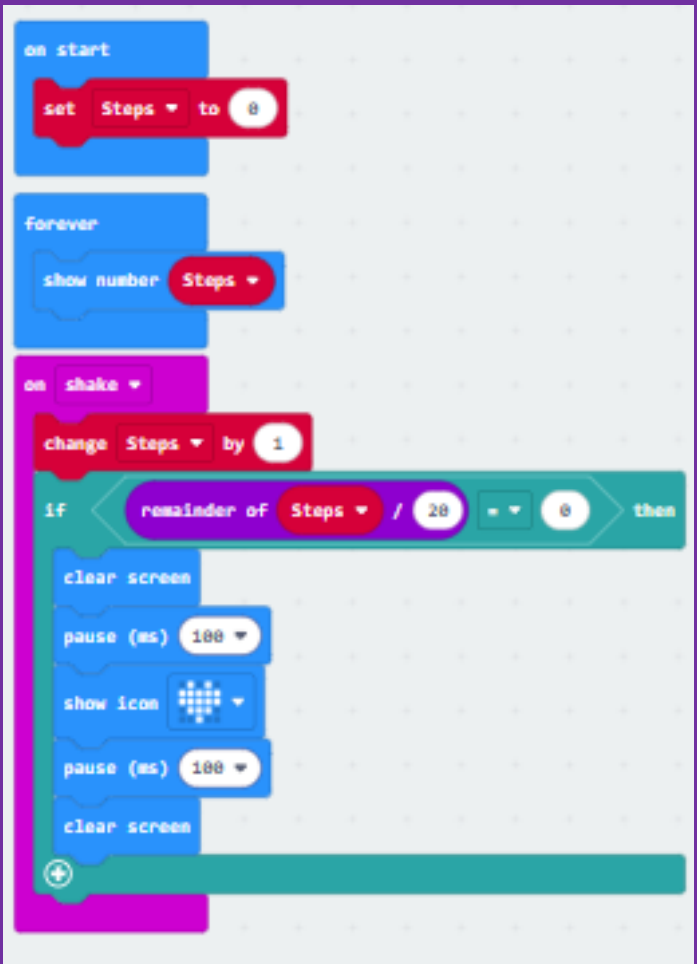
From Math chose  but inside the 0  variable and change number 1 to 20 to be like this  then drag it here  to be like this:



From Basic chose  drag inside [if] Block, under  drag  , then drag  and  and  to be like this :



Now we have finished the code, Your code should be like this:



Plug your micro:bit into the computer then press Download ...