



Tobbie II

Crystal Kits

Q Search



Welcome!

Tobbie II

Product Overview

[DOWNLOAD] Raw HEX Code

[DOWNLOAD] Tobbie II Android
Mobile App0 - Pre Testing Tobbie II & Micro:bit
Kit

1- Creating the program

0 - Assembly Checker Program

A - Explorer Program

B - Follow Me Program

C - Singing & Dancing Program

D - Light Tracking Program

E - Thermometer Program

F - Calculator Program

Powered By **GitBook**

A - Explorer Program

A step-by-step explanation of how to programming Tobbie II to explore the world by themselves!

Raw HEX code: Download Here



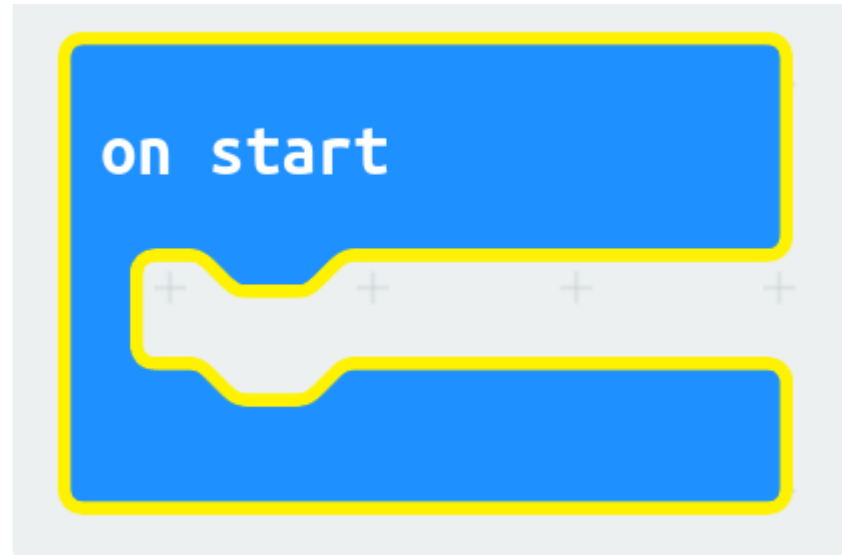
01.Explorer.hex 630KB
Text

Summary: Learn how to programming Tobbie to explore the world!

Step 1: Create Variable GO and set GO = 0



You can specify what Tobbie will do when it just start out by using the block below

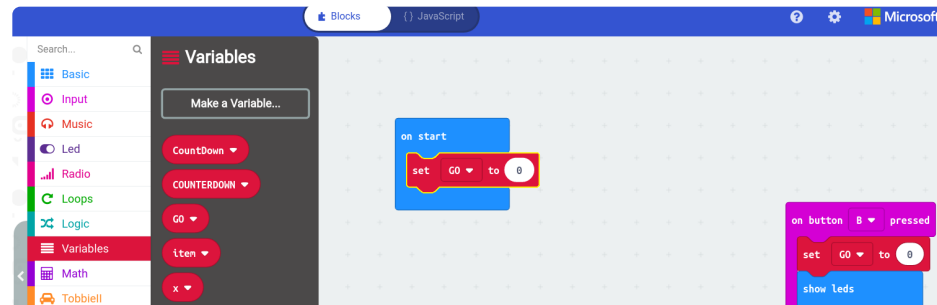


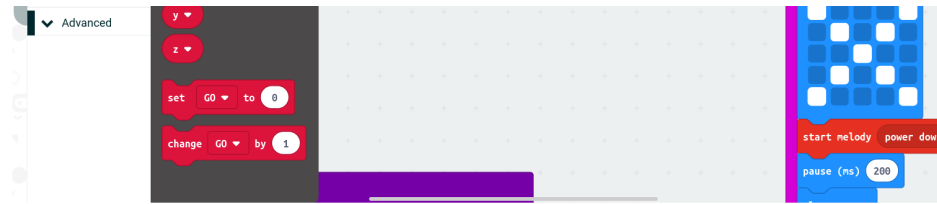
Specify what to do when the Micro:bit start (In this case, connect to power)

1 - Create a variable

Variable is valuable for any type of programming. In this case GO variable is acting as a counter to help Tobbie keep track of how many task its has on hand

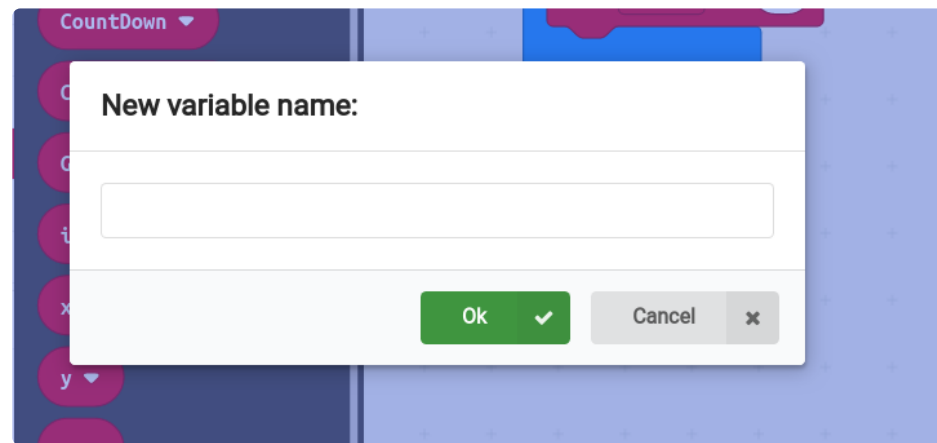
 You can declare variable by following the below screen





You can see a list of available variable & option to make a new one

2 - You will be ask to add variable name then click OK



3 - Scroll down to see the option to tell Tobbie what is the value of variable GO

 You can specified a value of a variable by using the block below



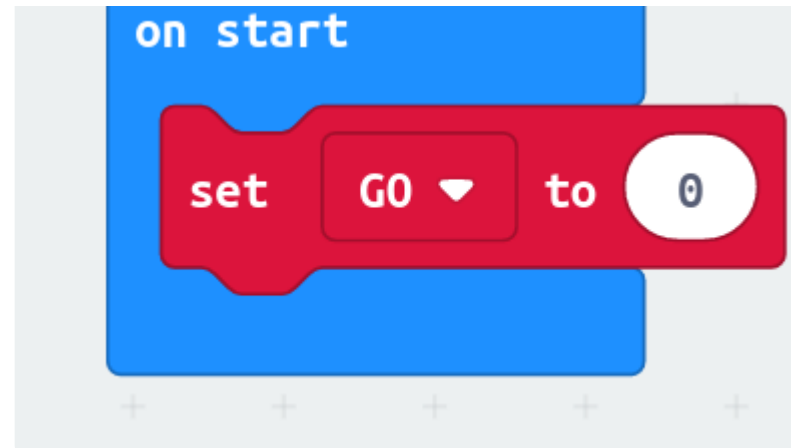


Don't worry if you cannot see the variable you just name. You can choose from a list of available variable by click on the **down arrow**



4 - Let's see the complete block of code

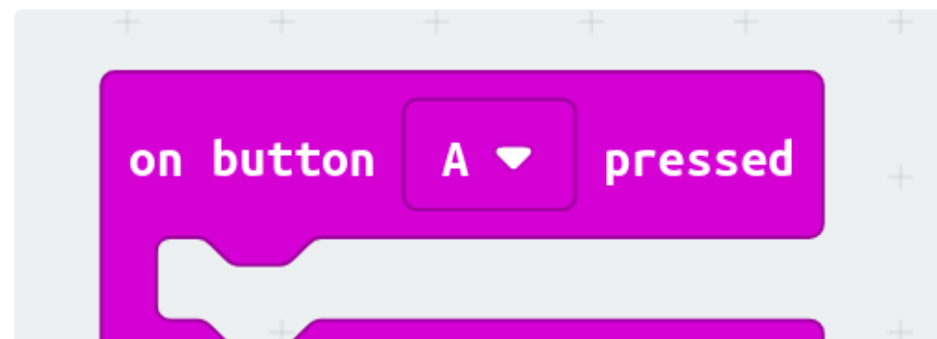




Step 2: Programming how Tobbie can wake up when you press button A

1 - We want Tobbie can react and show us the count down that Tobbie is going to explore the world so we can set Tobbie on a flat surface

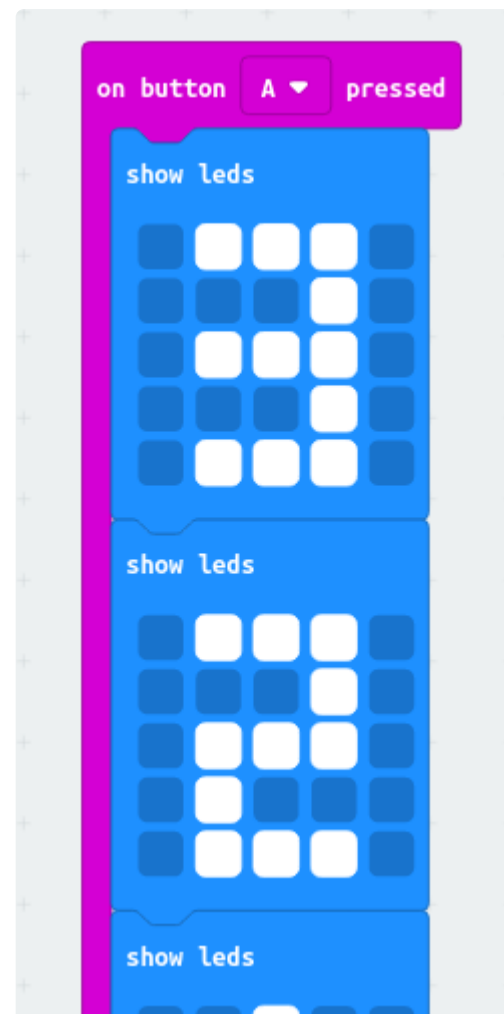
 You can specify what Tobbie will do once the button A is pressed using the block below

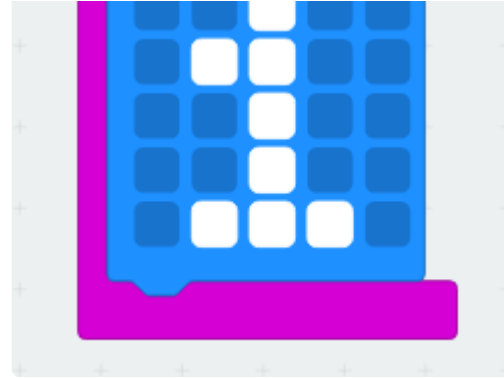




Button A program

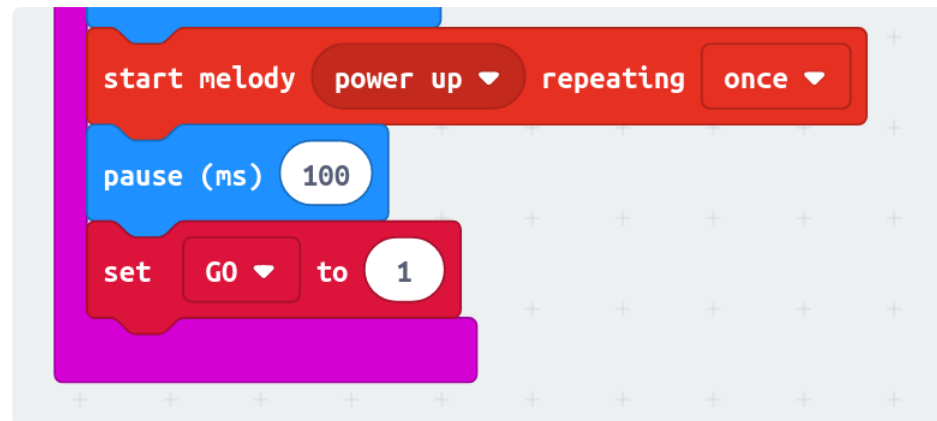
2 - Then we can add count down by programming the LED of Tobbie





When pressing the button A, Tobbie will so screen 3,2,1 consecutively

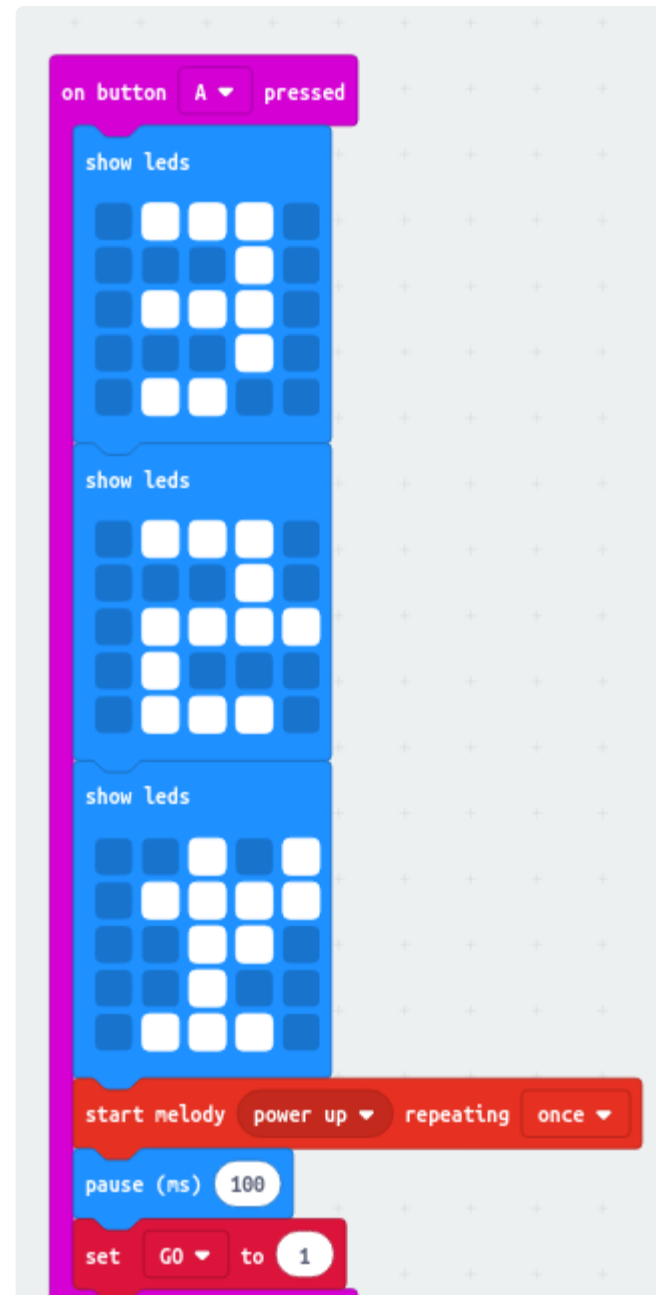
3 - But we also want Tobbie to make some noise once its ready to depart to their adventure!

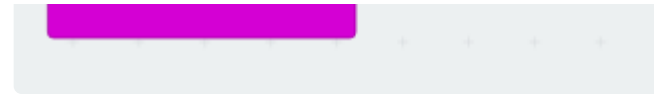


After showing the countdown indicator, Tobbie will play the melody one time then pause for 100ms

4 - After pausing for 100ms (it is very quick), Tobbie will add one to the variable GO (this mean Tobbie has finished one task!)

5 - Let's see the complete block of code

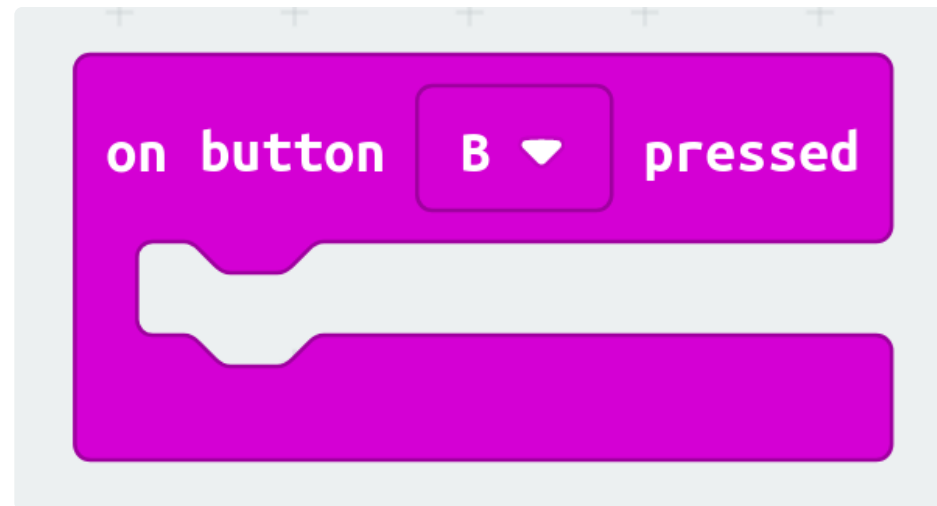




Step 3: Programming how Tobbie can stop explore when you press button B

1 - We want Tobbie can stop exploring to conserve energy when pressing button B

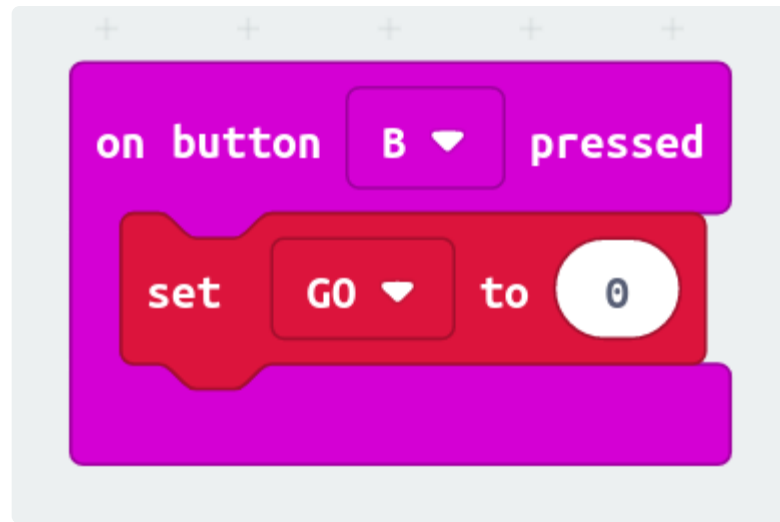
 You can specify what Tobbie will do once the button B is pressed using the block below



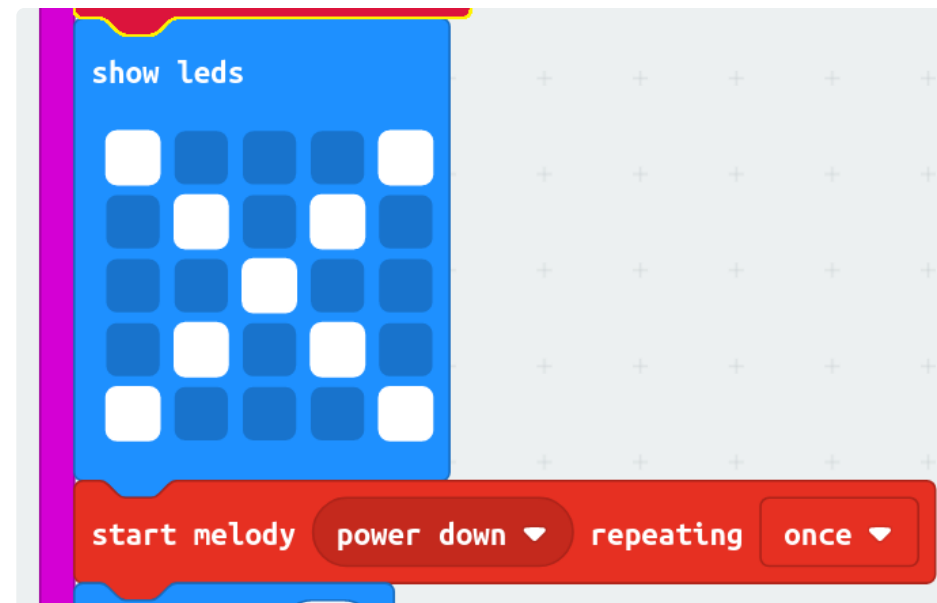
Button B Program

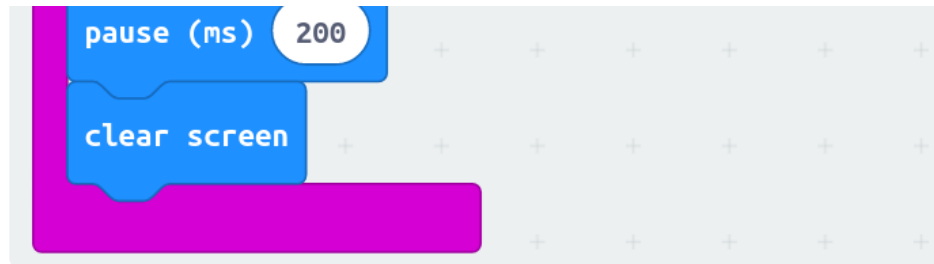
2 - Since Tobbie is going to stop, we need to tell Tobbie to set variable GO back to 0 (mean Tobbie has no task to do. For

now!)



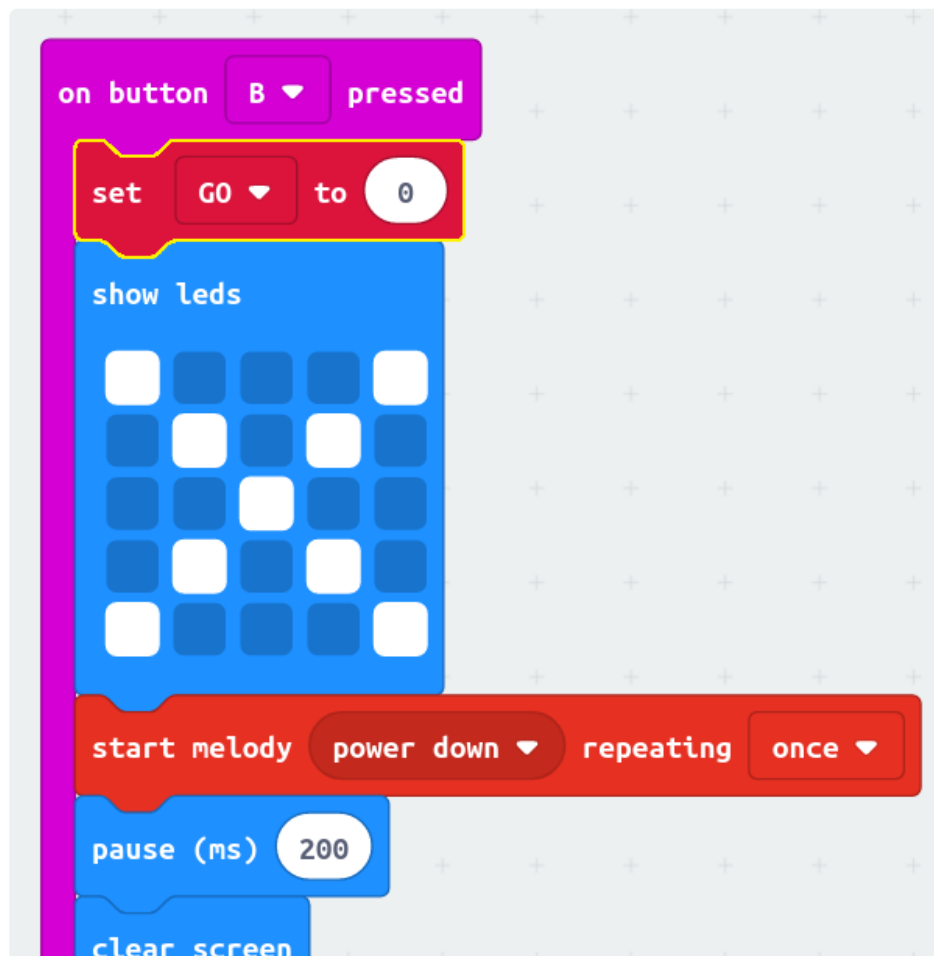
3 - We also want Tobbie make some noise and show that on its LED indicator





This will show the cross sign on LED then run music one & pause for 200ms

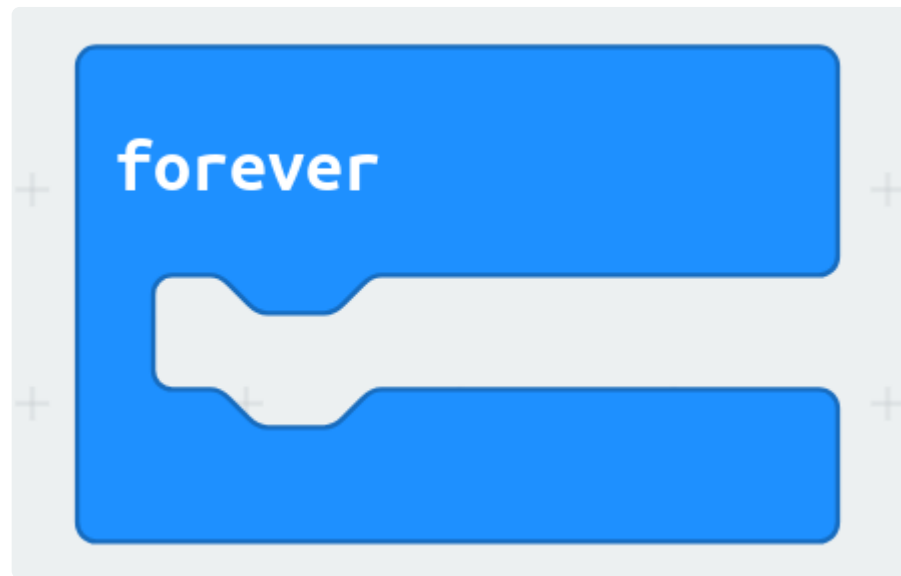
4 - Let's see the complete block of code





Step 4: Tell Tobbie what to do. And Tobbie will do it. Forever!

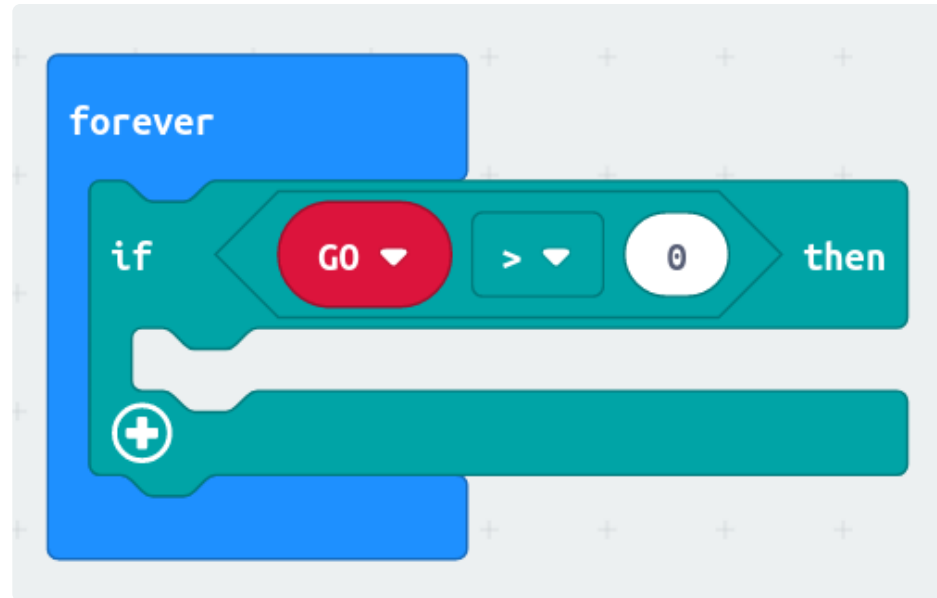
-  You can program Tobbie to do the same task forever by using the block



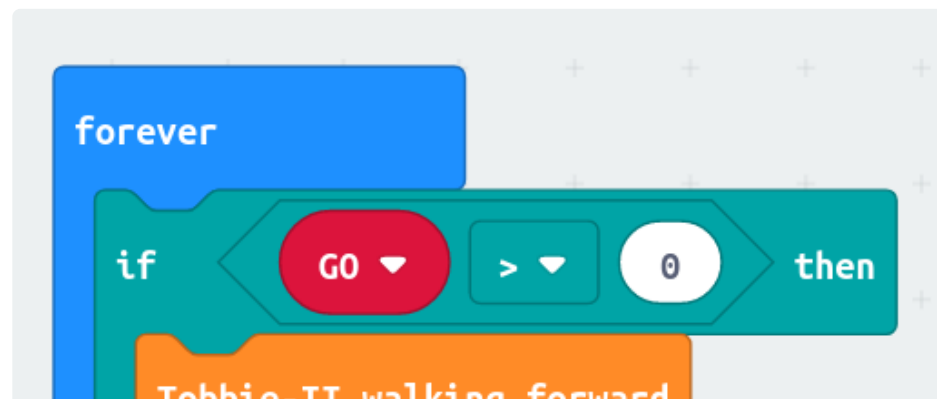
Forever Block

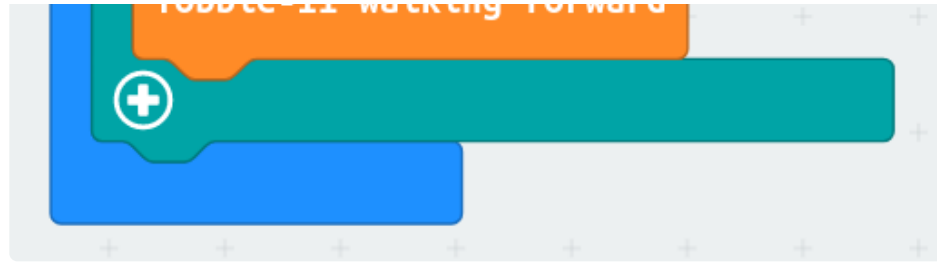
1 - We want to create Logic component for Tobbie. Tobbie now can check if its has a task on hand or not & proceed with the program or if not, stop its program on the course

- ① You can using Logic Block to check the status of variable GO



- 2 - If the condition is being satisfied, then Tobbie can proceed to go forward





You can check the Installation guide for Tobbie II Extension on Makecode

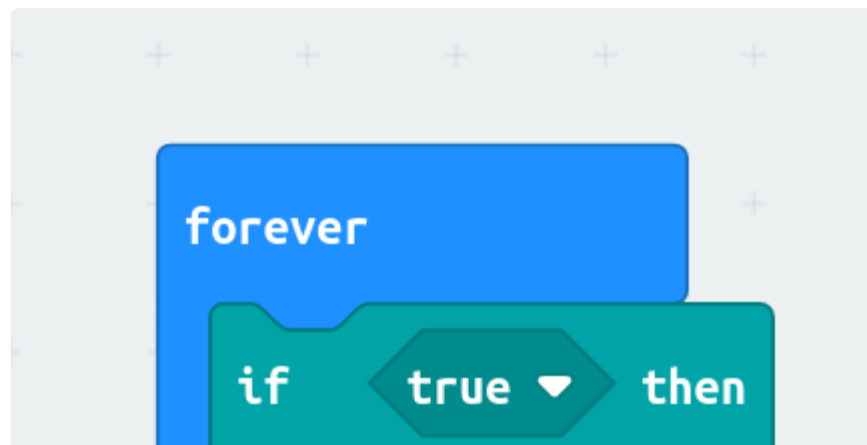


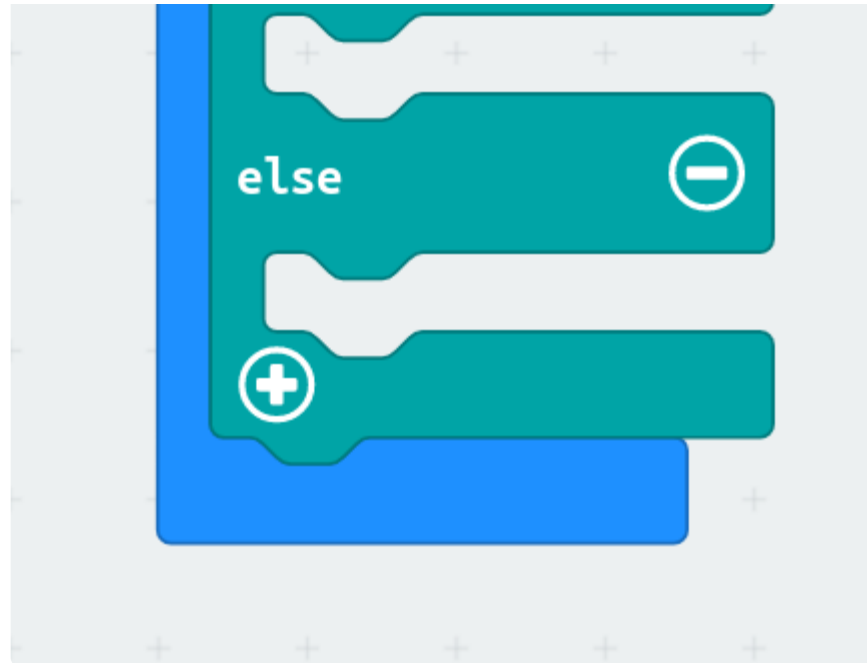
1- Creating the program

3 - Next, let's utilise the IR sensor that Tobbie II equipped with to detect obstacle!



There are two case for Tobbie, so you can using If-else statement

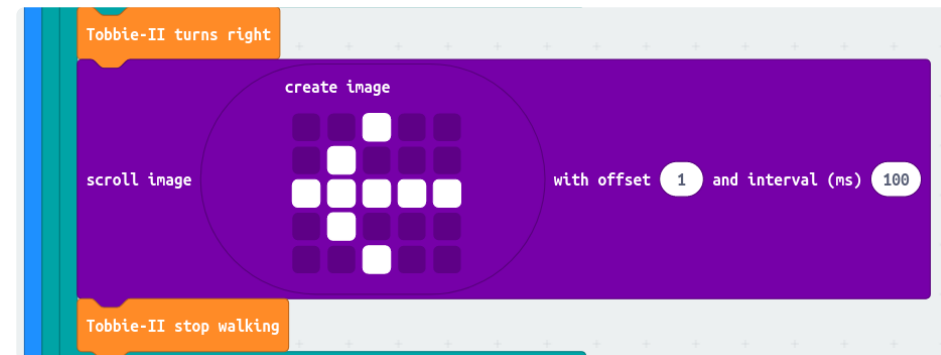
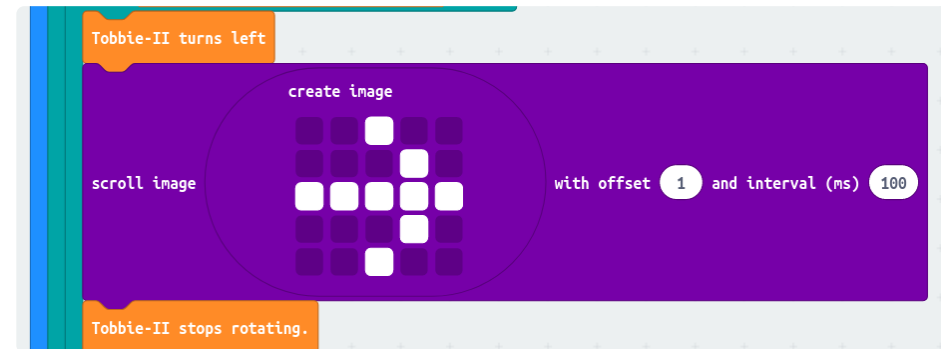




If-else block

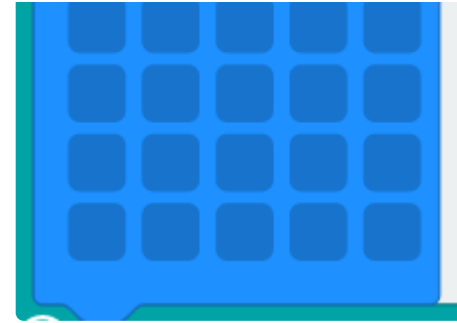


4 - First scenario: Programming Tobbie what to do once its receive IR sensor data (mean they found obstacle)

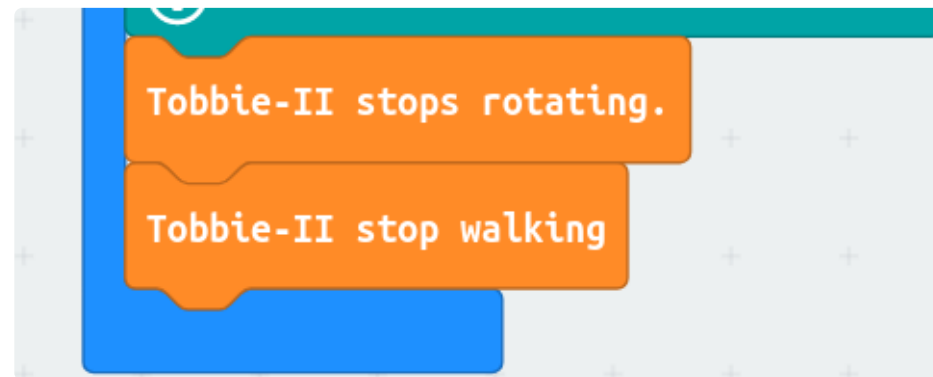


5 - Second Scenario: Programming Tobbie to continue walking and not showing any warning.

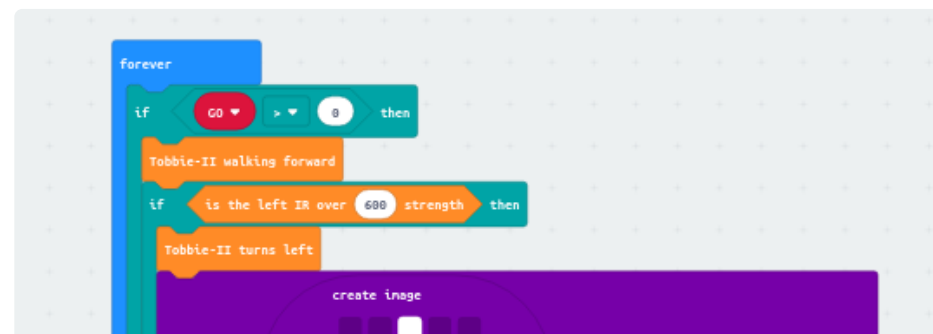


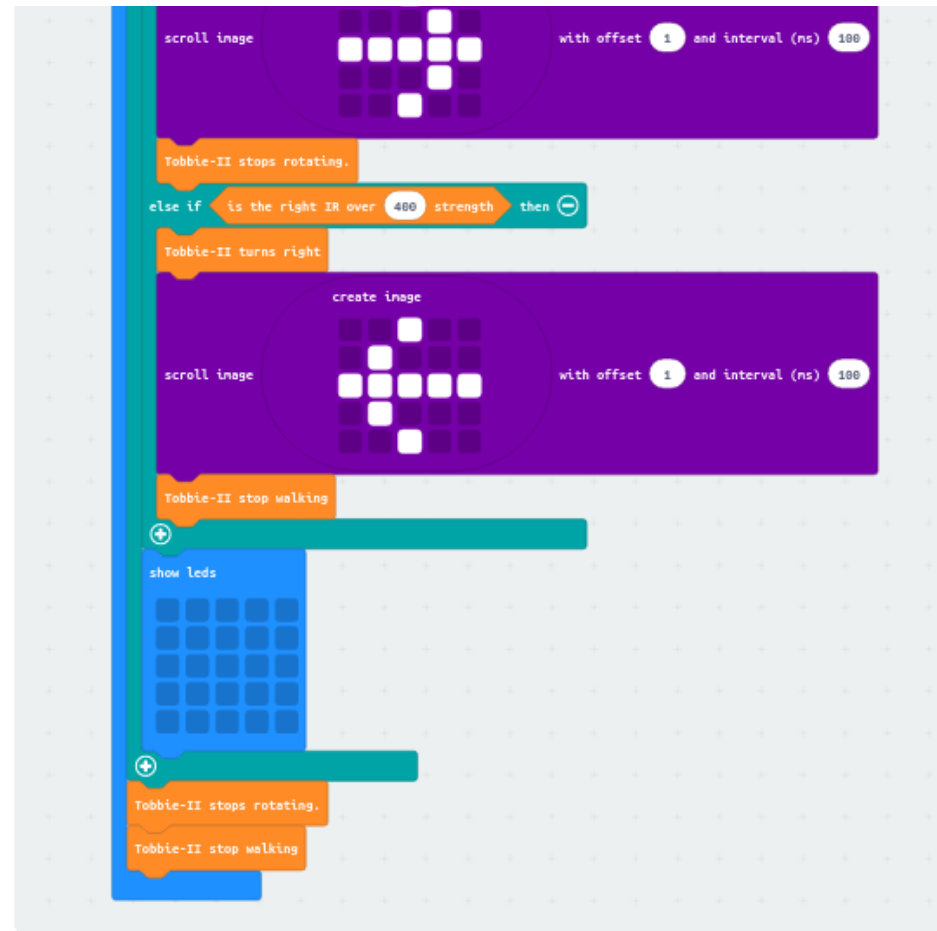


6 - If Tobbie II receive the signal that the GO variable = 0, means that Tobbie II doesn't have any task to perform, Tobbie II will stop rotating & walking altogether



7 - Let's see the complete block of code





Previous
0 - Assembly Checker Program

Next

B - Follow Me Program



Last modified 4yr ago

WAS THIS PAGE HELPFUL?   