Project 125

DP EDUCATION

Coding School

micro:bit

Start here

- First drag an on start block.
- Click on the Arrays tab and drag the set list block into the on start block.
- In the set list block, click on the E head in front of the list and click on new variable.

Click on New variable. do.

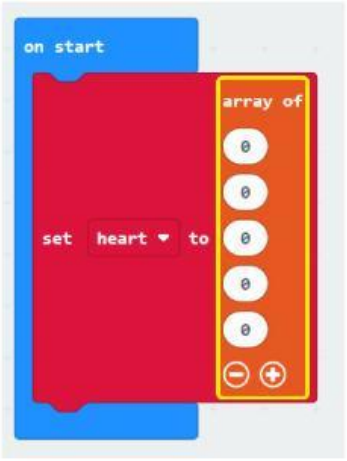
- Click on New variable and set a variable as heart.

Note it as heart.

Click on Ok.

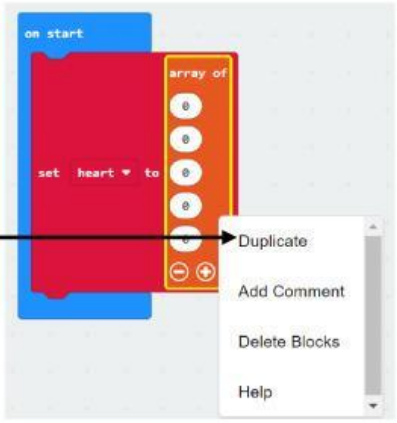
- Here we will prepare five more arrays inside the heart array.

❖ For that, click on the plus sign in front of the array of and set the required space to prepare five arrays.



❖ Then click on the array of block and duplicate that block.

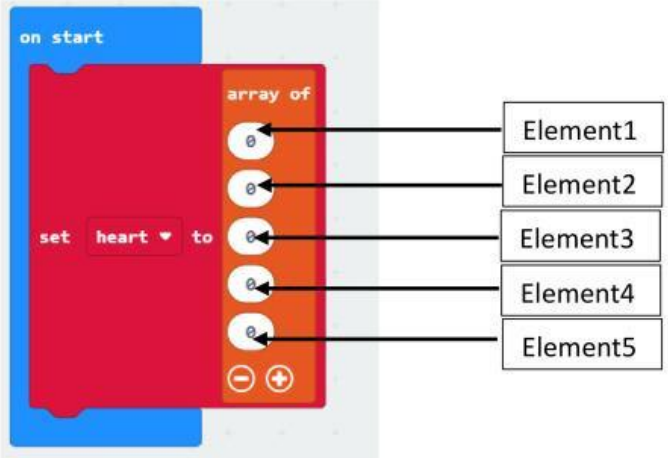
Click on Duplicate.



❖ ⍰ Duplicate five array of blocks here.

❖ Then let's add the duplicated array of blocks into the heart array as follows.

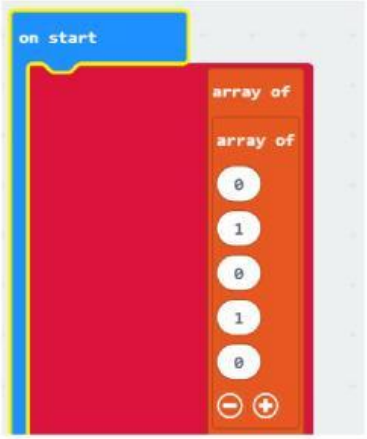
Add the five arrays you have duplicated for the five positions element1, element2, element3, element4, element5 shown in the diagram below.



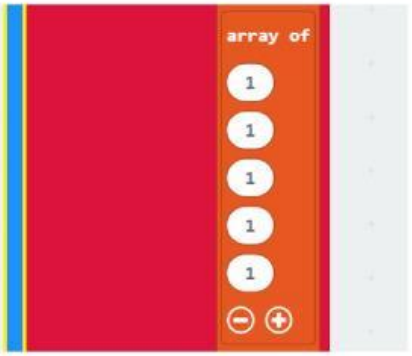
- Below is how it appears when an array is added to the first element in the heart array.

In the same way, add four arrays for the remaining four elements.

- Add the following values as 0,1,0,1,0 for the existing element of the array added to the first element.



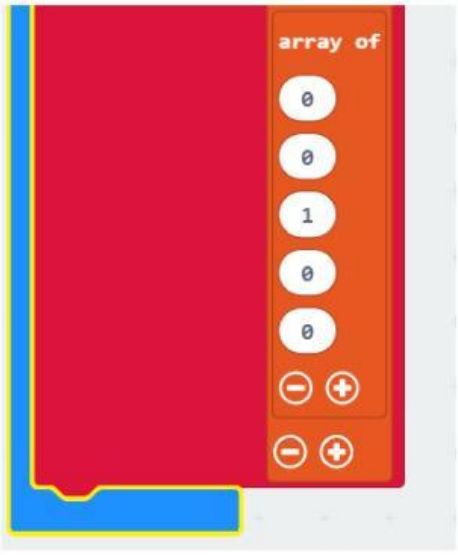
❖ Add the following values as 1, 1, 1, 1, 1 to the existing element of the array added to the second element.



❖ Add the following values as 1, 1, 1, 1, 1 to the existing element of the array added to the third element.

❖ For the existing element of the array added to the fourth element, add the following values respectively as 0, 1, 1, 1, 0.

❖ Add the following values as 0, 1, 1, 1, 0 for the existing element of the array added to the fifth element.



❖ The following type of code set can be obtained when set up as mentioned above.

❖ Drag a Function block as showHeart using the Function tab.

- Drag a for loop block into the showHeart function block.
- Click on the E head in front of its index and click on New variable and set a variable as Y. The Y variable should include numbers from 0 to 4.

- Add another for loop inside that for loop.

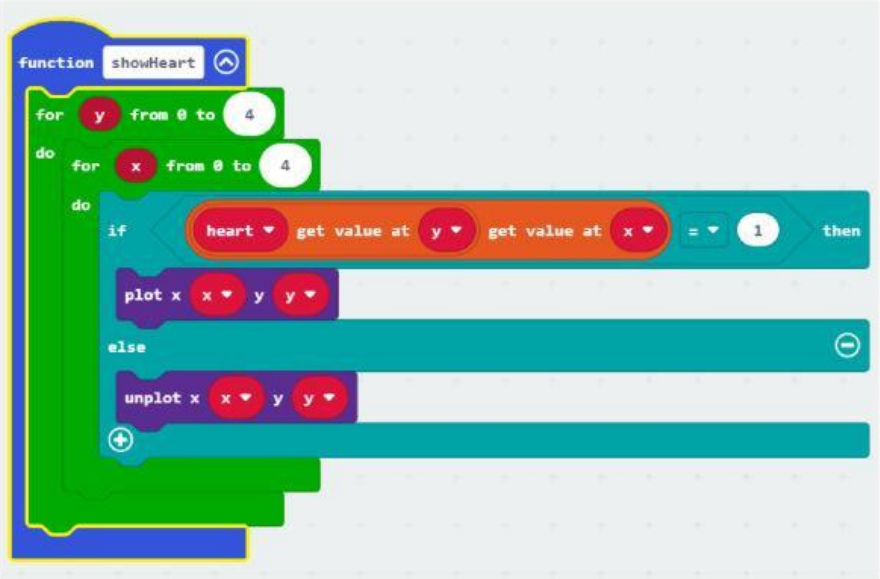
- Click on the arrow head in front of its index and click on New variable and set a variable as X. The numbers from 0 to 4 should be included for the X variable.

- Drag an Eles if block.

- If the value of X and Y of the heart array are equal to 1, then the value assigned to the variable X should be assigned to X and the value assigned to the variable Y should be assigned to Y. The bulb should be lit at the position corresponding to X and Y.

- If the value obtained for X and the value obtained for Y in the heart array are not equal to 1, then the value assigned to the X variable should be assigned to X and the value assigned to the Y variable should be assigned to Y and the bulb should not be lit in the position related to X and Y.

The related blocks should appear as follows.



- The showHeart function should be called. After a second the screen should clear. The showHeart function is called one second after the screen clears. This should continue to happen.