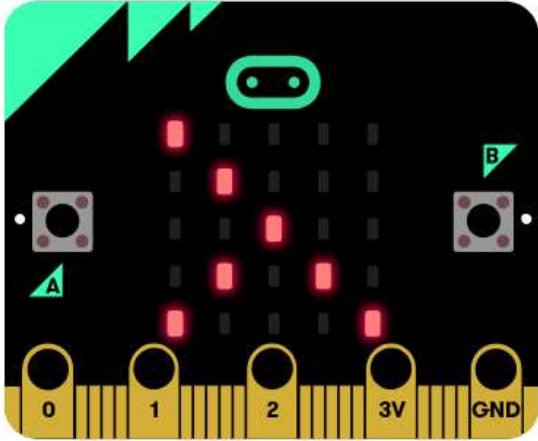


Task 2

Create a program that displays the following result on startup:



Save your program as `Task2.hex`

Embed the hex file below with a screenshot of your block code.

My answer



Task 3

Create a program that does the following in this sequence:

1. Displays the word "Hi"
2. Pauses for 1 second
3. Displays the big square
4. Pauses for 1 second
5. Displays the small square
6. Pauses for 1 second
7. Screen is then cleared

Save your program as [Task3.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer

Task 4

Create a program that performs the following functions:

When Button A is pressed:

1. Shows the current temperature

When Button B is pressed:

1. Displays the following image



When button A and B are pressed simultaneously:

1. The melody "punchline" plays once
2. The ghost icon displays
3. Pause for 2 and a half seconds
4. Clear screen

[Save your program as Task4.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer

Task 5

Create a program that adds two random numbers together and displays the result.
The random number for the first number must be between 0 and 20.
The random number for the second number must be between 50 and 100.

[Save your program as Task5.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer

Task 6

Create a program that does the following:

1. On start : Assigns a random number to two variables called **Num1** and **Num2**
2. When button A is pressed, the value of **Num1** is displayed (between 0 and 20)
3. When button B is pressed, the value of **Num2** is displayed (between 30 and 80)
4. When button A and B are simultaneously pressed, the *product* of **Num1** and **Num2** is displayed

[Save your program as Task6.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer

Task 7

Create a program that will light up each LED one at a time from left to right, one row at a time -- when button A is pressed.



Task7
Example

Watch the video the example.

Make use of **Loops** and create two variables called **x** and **y**.

At the start of your program, set the values of **x** and **y** to 0.

Hint : You will need **two loops** and you will need to change the values of **x** and **y** to move them along their respective positions.

Have a pause of 100ms between each LED being lit.

[Save your program as Task7.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer



Task 8


Create a program to simulate rolling a die.

When you shake the micro:bit it must:

1. Clear the screen
2. Place a random number from 1 to 6 in a *variable*
3. The LED at co-ordinates 2,2 must flash on and off four times with a 250ms pause between each flash
4. The value of the *variable* must then be displayed



Task8
Example

See the video for an example. 

Save your program as [Task8.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer



Task 9

Create a program that will simulate a clicker-counter.

The clicker starts at 0.

When button A is pressed, the counter goes up and displays the number.

When button B is pressed, the counter goes down and displays the number.

If the counter value is on 0, it must remain at 0 and not go into negative numbers.
(You will have to use a **'if-then'** block)

Tips : Create a variable called **counter** to hold the value of the number

[Save your program as Task9.hex](#)

Embed the hex file below with a screenshot of your block code.



My answer

Task 10

Create a "[Magic 8 Ball](#)" program to answer any question.

The user must shake the micro:bit, a brief LED animation should display and then an answer must appear. See the video example for the idea.

You are to use **variables** and **If - Else IF - Else** blocks.

You can have as many different responses as you like but must have a minimum of 3 responses.

[Save your program as Task10.hex](#)

Embed the hex file below with a screenshot of your block code.

My answer