



Adam's Mum keeps nagging him to drink more water so that he doesn't get dehydrated in the hot weather, and this gave him the idea of using his MiniMU glove as a reminder system.

Instead of his Mum reminding him to drink more water, his glove could sense when he lifts his bottle to drink, and then start a timer. When the timer runs out, his glove could beep to remind him that it is time to drink more water – It would certainly be much more fun than his Mum nagging him all the time! Adam is a bit stuck with the coding though, can you help him out?

In today's lesson you will help Adam to design a program for the 'Water Glove' project.

By doing this you will learn about:

- event handlers;
- variables, including boolean variables;
- if statements;
- functions;
- and constants.

You will also learn how to measure elapsed time on the micro:bit, as well as making a more complex gesture out of two simple gestures.

You will need:

- your assembled MiniMU glove;
- the MakeCode web coding editor;
- a water bottle with some water in it.

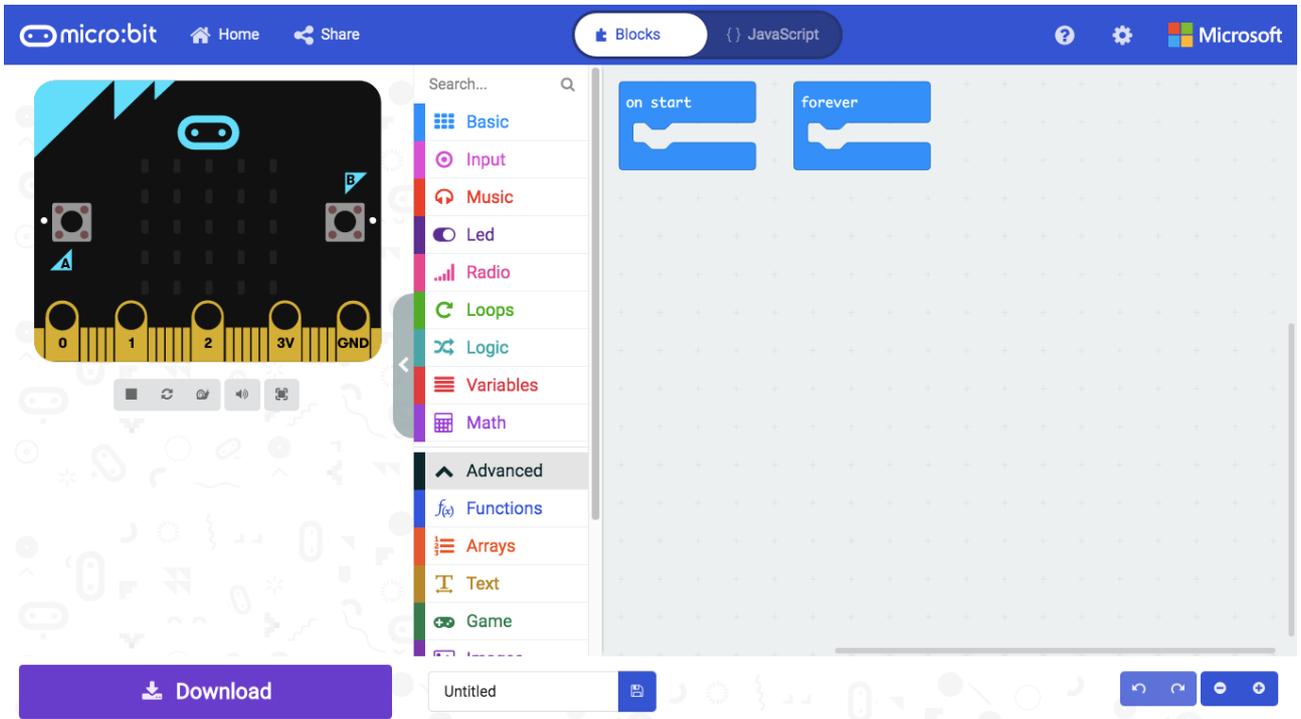


Figure 1: The MakeCode web coding editor.

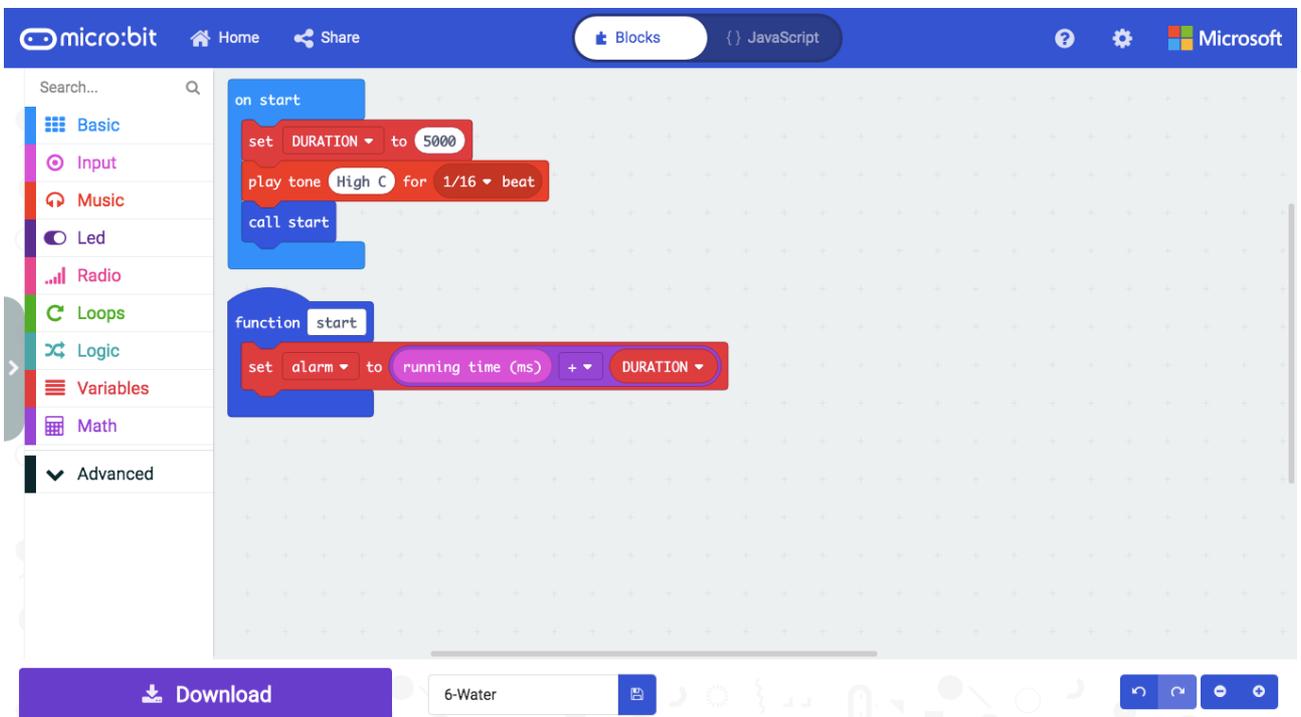


Figure 2: The OnStart event handler, and 'start' function.

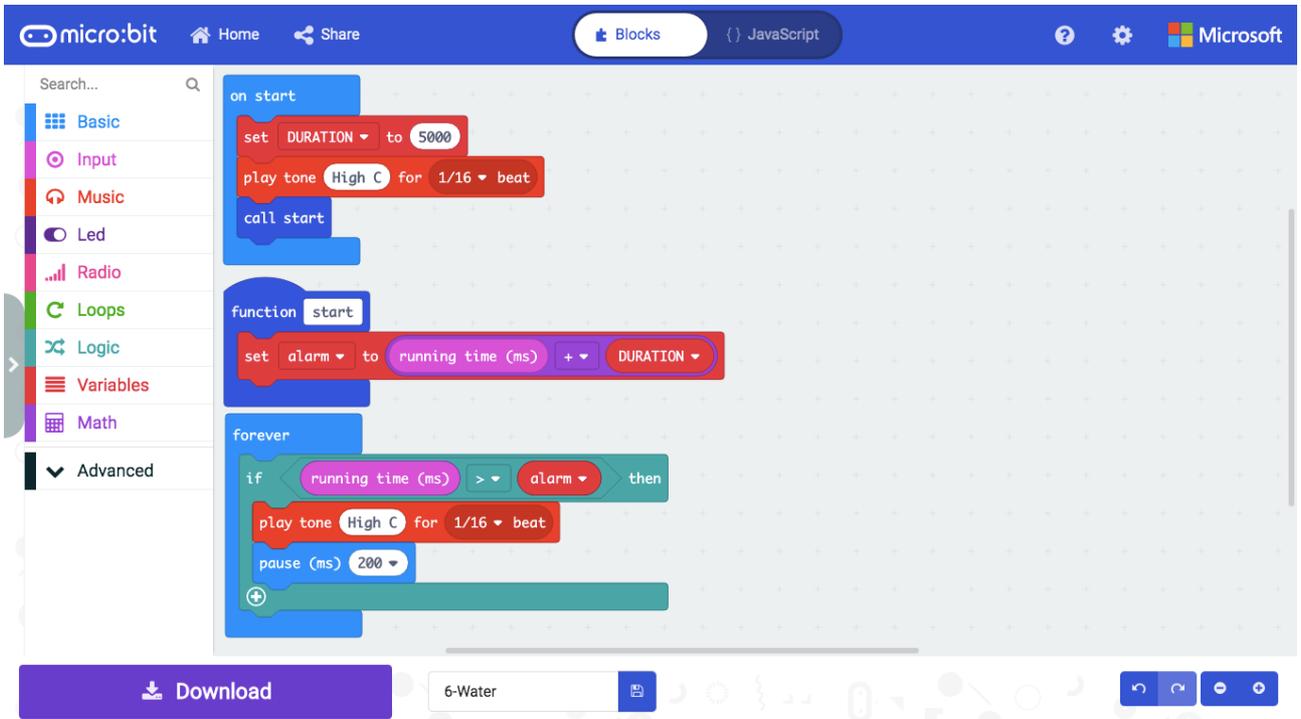


Figure 3: Forever loop – this sounds the alarm.

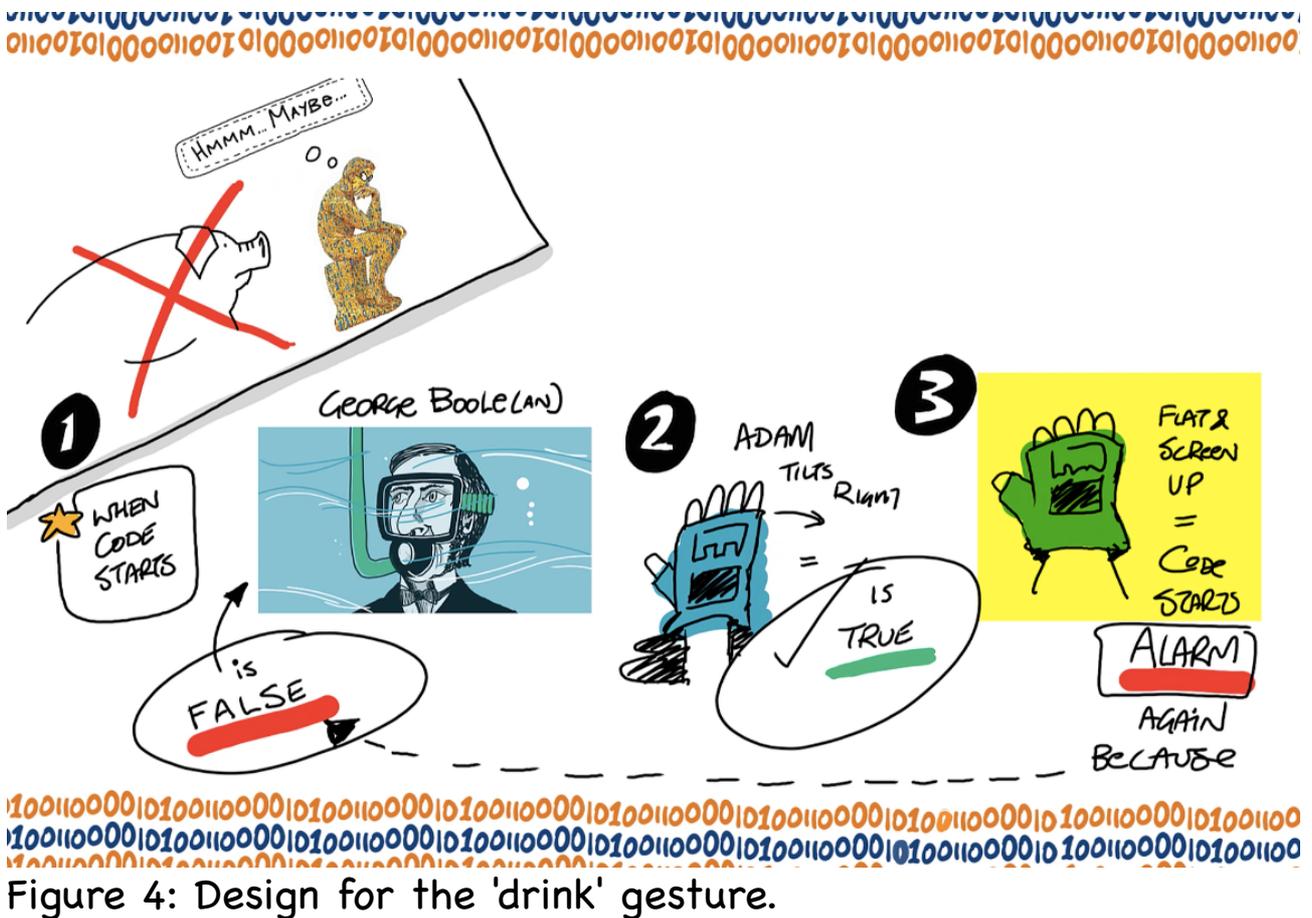


Figure 4: Design for the 'drink' gesture.

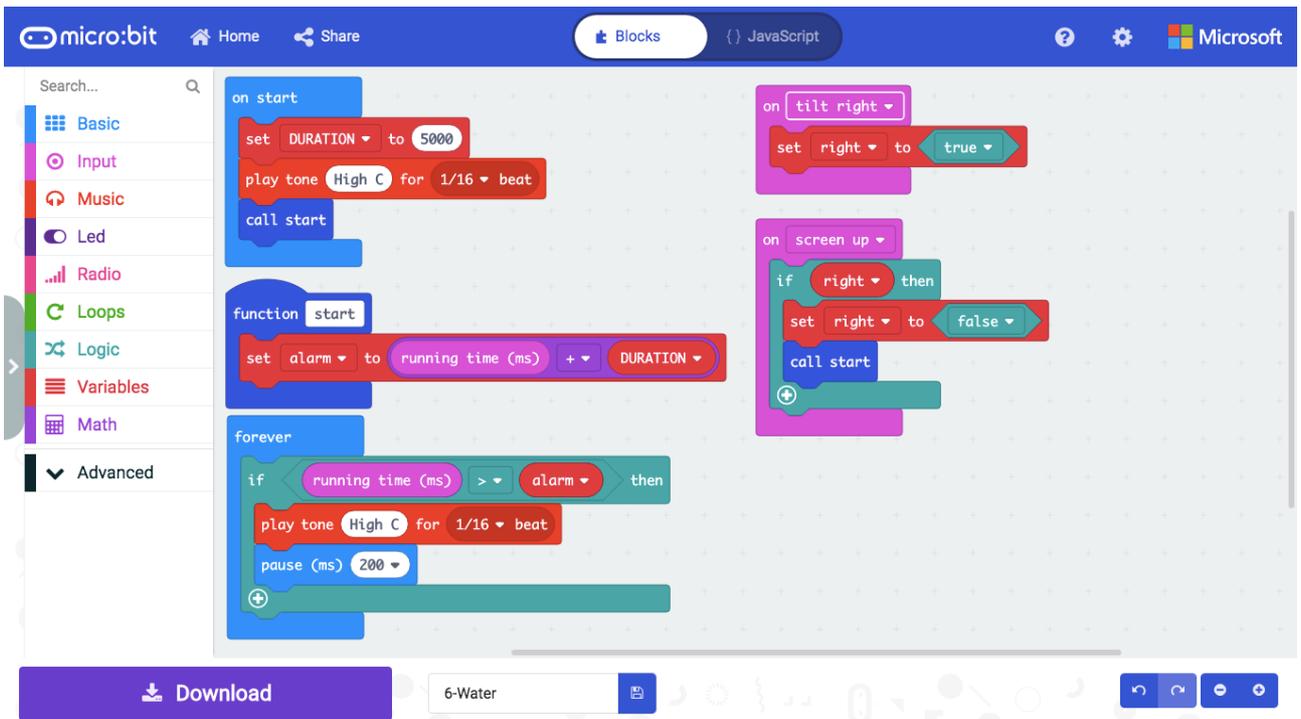


Figure 5: OnTiltRight and OnScreenUp gestures (drink gesture).

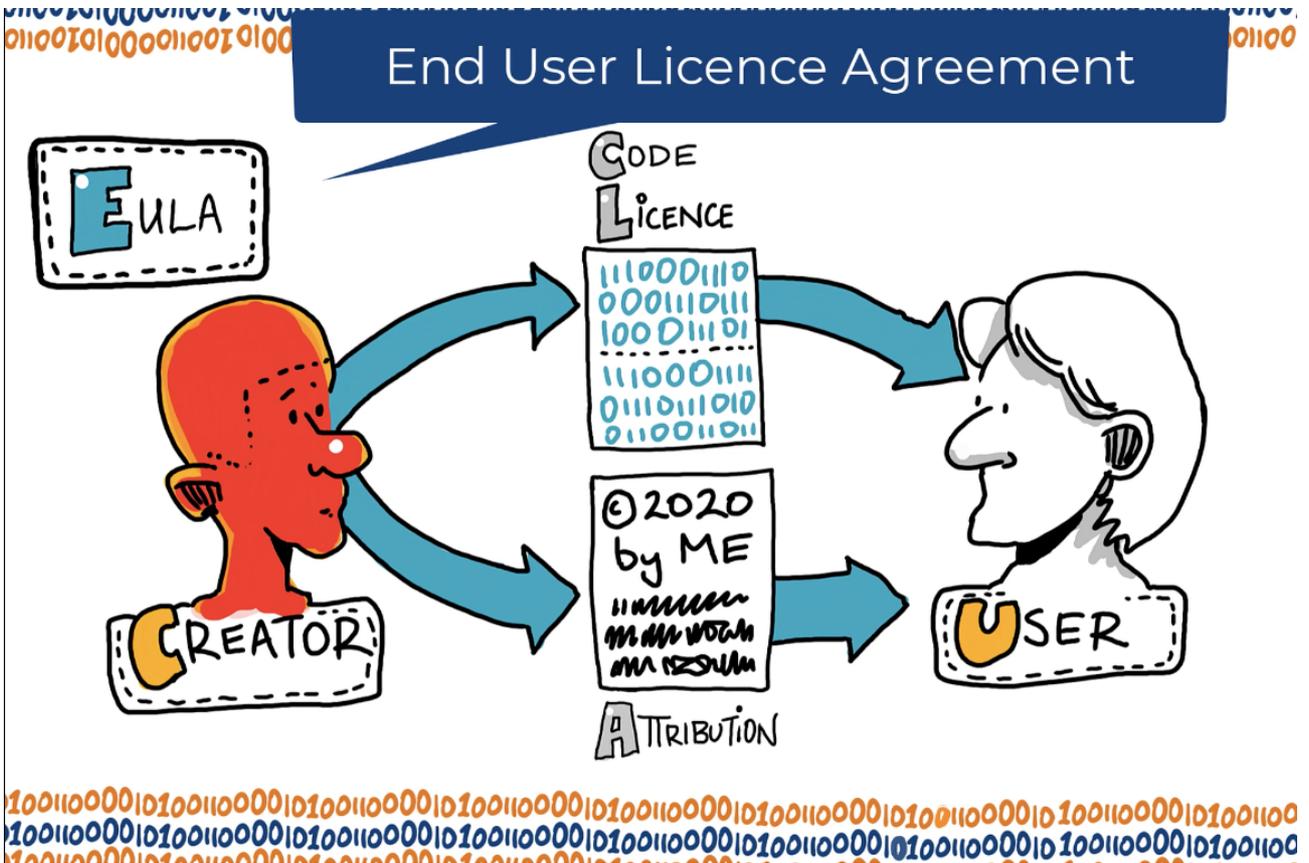


Figure 6: Copyright, Licence (EULA) and Attribution.

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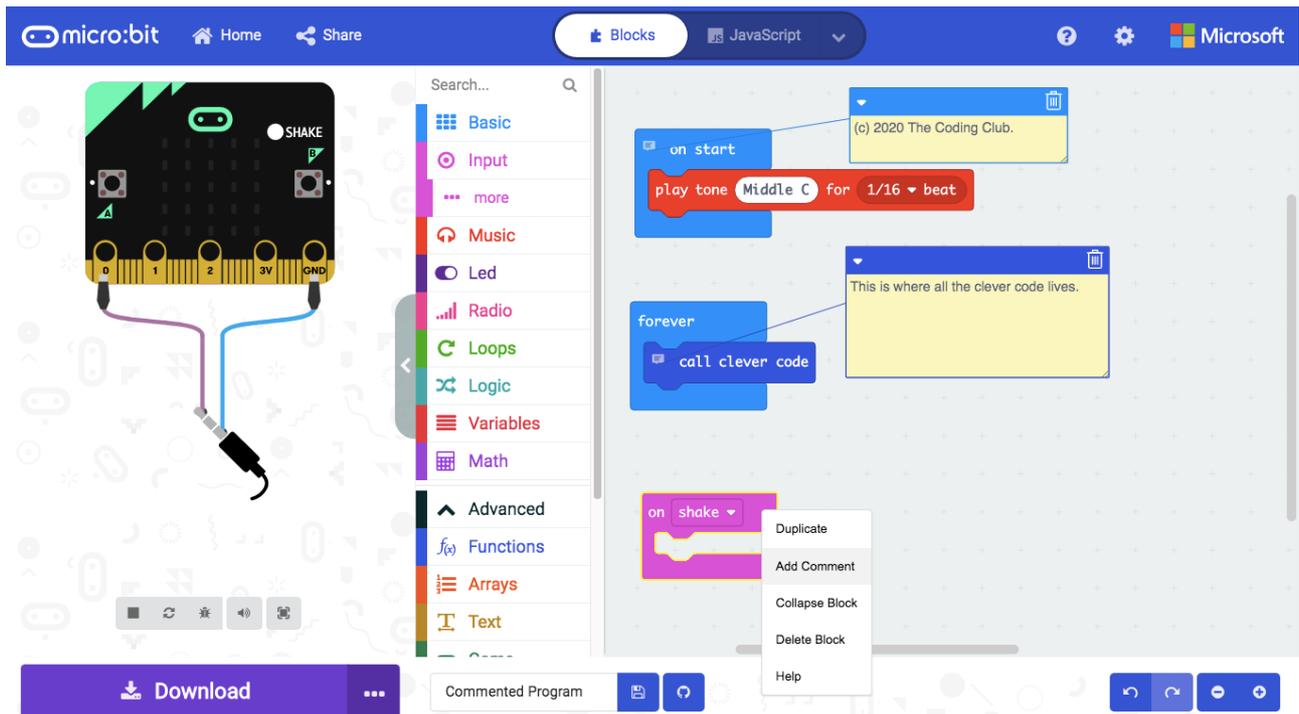
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Additional Information – adding comments to MakeCode



To add a comment to a MakeCode program, right-click with the mouse pointer on any block. From the pop-up menu, choose 'Add Comment', and it adds a yellow note attached to the block.

You can then type in any text you want in that comment.

If you click on the small triangle in the top left corner of the comment, it will hide it.

You can show the comment again by clicking on the speech bubble icon in the top left corner of the block.

To delete a comment, click on the dustbin icon in the top right corner of the comment.