

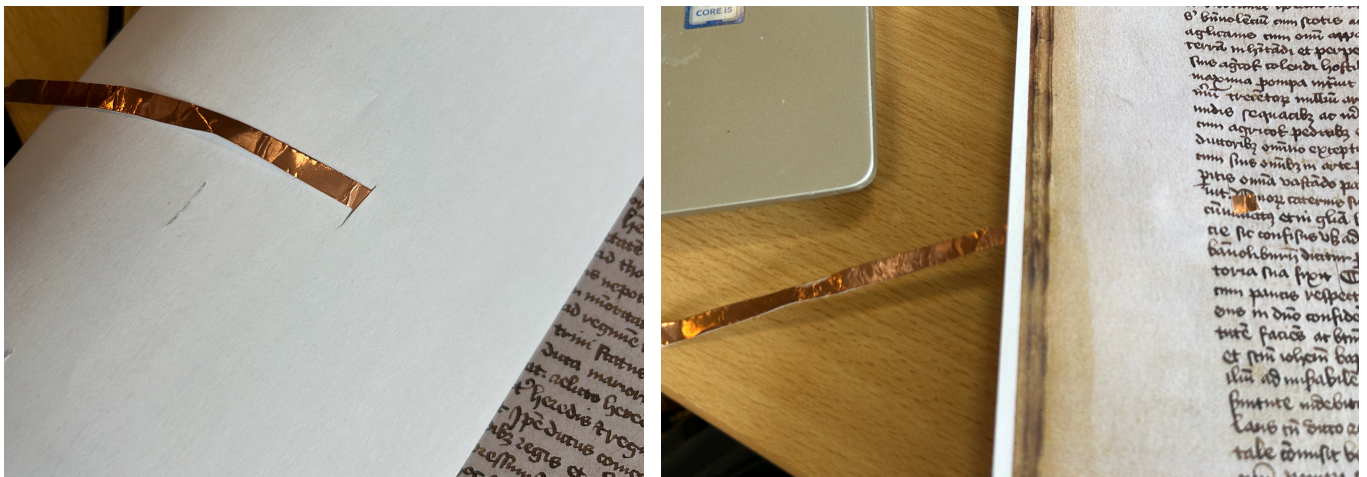
ChroniCode with Glasgow Libraries at Glasgow Science Festival

1. Make the words conductive

Decide which document you want to work with and **what six pieces of text/images** on your document you want to add sounds to.

Tear off a piece of copper tape that's long enough to reach from the text you want to make conductive past the edge of the page so that it sticks out a couple of centimetres.

Feed the paper-backed tape through the slits in the photograph from the back.



Then remove enough tape to make about 0.5cm at the end sticky and stick it to the front of the page, just beside the slit you fed it through.

2. Remix the code

To open the Scratch programs we've made for this workshop, click on one of these links (or type the short link into the address bar of a web browser):

Liber Chronicarum: <https://tinyurl.com/chronicode1>

Liber Pluscardensis - Arbroath passage 1: <https://tinyurl.com/chronicode2>

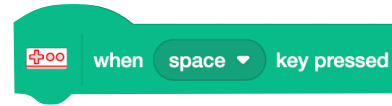
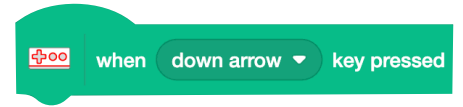
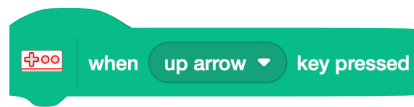
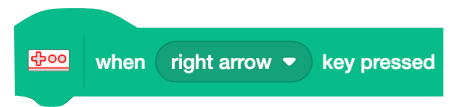
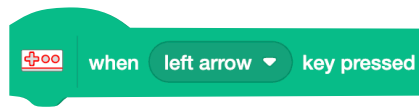
Liber Pluscardensis - Arbroath passage 2: <https://tinyurl.com/chronicode3>

Liber Pluscardensis - Bannockburn: <https://tinyurl.com/chronicode4>

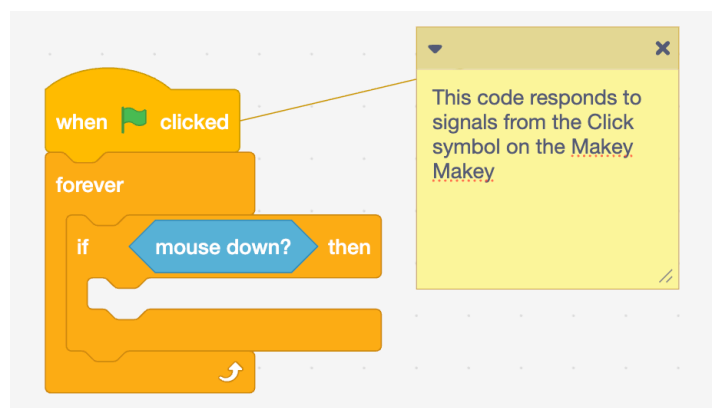
At the moment, these programs don't do much, because they need you to add some instruction blocks to them. (If you have a Scratch account and are logged in, you should **click the green Remix button** at the top of the page to save your work to your account).

If you look at the middle of the screen you'll see five green blocks with a tiny picture of a Makey Makey in the corner.

We're going to add blocks to these, telling the computer what to do when someone touches the various conductive areas on our manuscript.

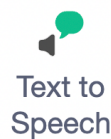


There is also a small group of yellow and blue blocks, which will react to a conductive area connected to the **Click** symbol on the Makey Makey:



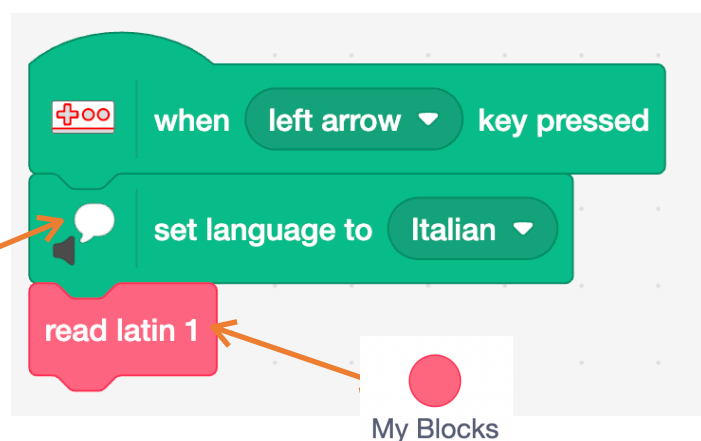
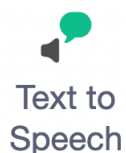
Adding your instructions

The blocks you'll need can be found by clicking on one of these symbols on the left hand side of the screen

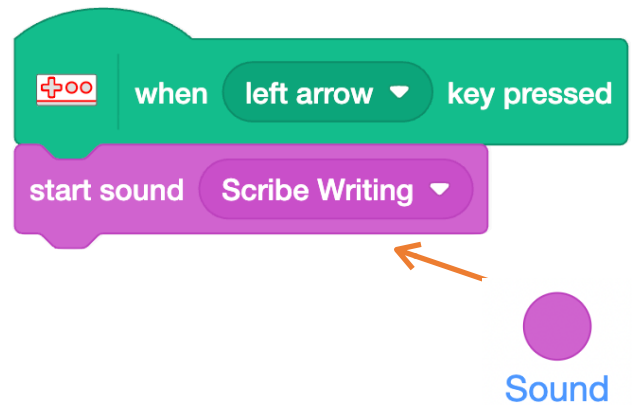


For example, when you touch the conductive area connected to the **left arrow** symbol on the Makey Makey, read aloud the Latin version of the first section of text:

Note: to get a more accurate pronunciation of the Latin sections, set the language to **Italian**



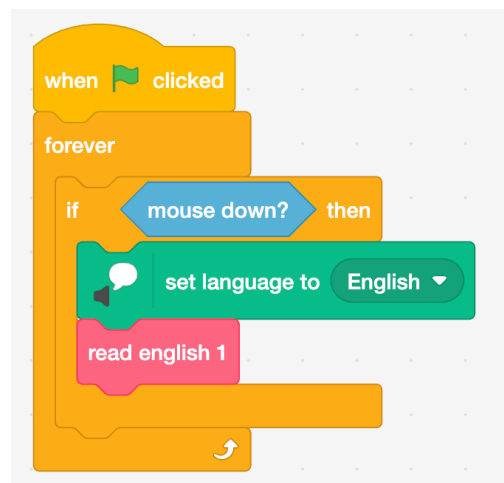
If you're working with the image at the top of the **Liber Chronicarum** page and want a sound played when someone touches an conductive part of the image, you can attach a pink **Sounds** block to the **Makey Makey** block:



You can also have sound effects played **at the same time** as the text is read, if you combine blocks like this. (You might want to reduce the volume of the background sound using the **set volume to** block if it's a loud sound clip).



To add any of these features to something connected to the Click symbol, just put the blocks inside the C-shaped **if-then** block (the block will automatically expand to fit):



3. Connect the Makey Makey

Connect the Makey Makey to a USB slot on your computer using the long red cable. Then attach crocodile clips to the Space, up, down, left and right symbols on the device.

Attach the other end of each clip to the matching highlighted text. So in our example above we'd connect the left arrow wire to the tape attached to the first section of text. here so that pressing it speaks and shows the Latin version of the first section of our document.

Finally, attach one more crocodile clip to the Earth bar on the Makey Makey. Remember to hold onto the metal end of this clip when you touch the various sections.

Now click the green Start flag and try out your Interactive Manuscript!

What Next?

You can find our programs from today plus online-only versions (made by James) that you control by a combination of clicking on areas on screen and pressing keys here:

<https://tinyurl.com/chronicode>