

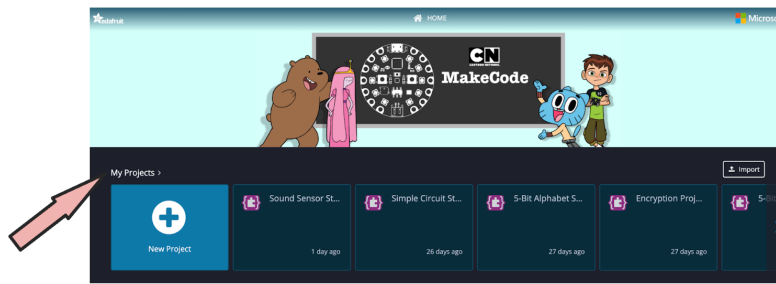
## Student Handout

### Storytelling Using Ledger Art Inspired Projects

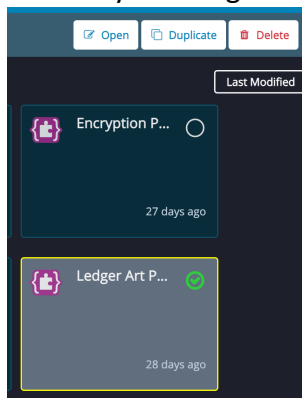
Choose a partner that has the code for the Ledger Art Project saved in their account and log in to [MakeCode](#).

#### Duplicate Your Ledger Art Project Code

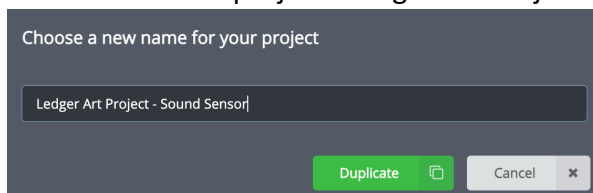
At your account home screen, click on “My Projects.”



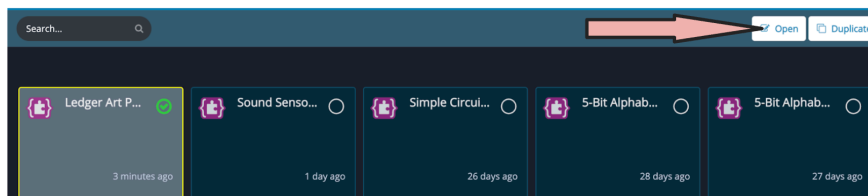
Click on your Ledger Art Project so that the green check appears and click “Duplicate.”



Rename the new project “Ledger Art Project – Sound Sensor” and click “Duplicate.”



Click the new project that appears so that the green check mark appears and click “Open.”



## Plan the Code

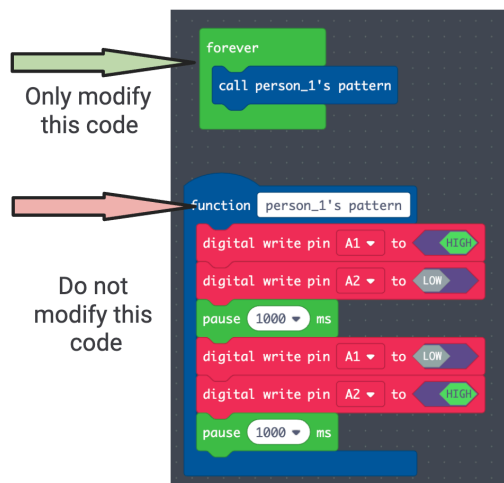
The goal for this project is to make the light patterns work when you tell the story of your project. In other words, when your sound level of your voice is at a certain level, you want to call the light pattern.

In your own words, write step-by-step what needs to happen in your code.

Example:     If sound level greater than \_\_\_\_\_, then run light pattern.  
              If sound level less than \_\_\_\_\_, then turn all LEDs off.

## Program the Sensor


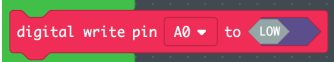
Helpful Hint:



Block List:

In addition to the *forever* and *function call* blocks, here are some other helpful blocks...

| Block | Location | What It Does   |
|-------|----------|--|
|       | LOGIC    | If the value is true, then the block will run.   |
|       | LOGIC    | If the value is true, then the first block of code will run. Otherwise, the second block of code will run. |
|       | LOGIC    | Math operator that checks if one value is greater than, less than, or equal to another.                    |

|   |                 |   |
|---|-----------------|---|
|   |                 | Variable blocks (like sound level) can be dragged over the number.          |
|  | INPUT           | Variable that stores the current sound level read by the sound sensor       |
|  | ADVANCED → PINS | Allows or blocks current through a pin (turns the connected LEDs on or off) |

You are now ready to program the sensor. Each partner should act as pilot for their own light pattern. Trade off when it works as intended.