**IDEAS HARDWARE SETUP**

**Laptop Setup**

1. In control Panel >> Hardware and Sound >> Power Options, set the option “Do nothing” when the lid is closed while the laptop is plugged in.
2. In Power & sleep settings, select the option “Never” to avoid turning off the screen and letting the PC go to sleep when plugged in.
3. Enable automatic time zone detections.

**IDEAS Software pre-requisites**

1. Install Node.js, npm, and git following the instructions in [reelyactive](https://reelyactive.github.io/diy/laptop-suite/)
   1. For node.js, check the box for “automatically install necessary tools. All other options are left as default.
   2. For npm and git, all settings are left default.
2. Install Diract node packages by running the commands listed in the file logger\_requirements.txt
3. Install Matlab following instructions [here](https://www.mathworks.com/help/install/install-products.html). Log in with project director’s account.
   1. Install the following toolboxes during initial setup. To add toolboxes later, just click “Add-ons” at the top of the screen.
      1. Audio toolbox
      2. DSP System toolbox
      3. Signal Processing toolbox
      4. Statistics and Machine Learning toolbox
      5. Text analytics toolbox
4. Install [OneDrive for Windows.](https://support.microsoft.com/en-us/office/sync-files-with-onedrive-in-windows-615391c4-2bd3-4aae-a42a-858262e42a49) Once installed, open the Windows File Explorer (folder icon) and click This PC, then click your C: drive, then Users, then lyle (or local username), then OneDrive. Alternatively, press the Windows key on the keyboard and search for OneDrive to open the directory. Once here, open another window of the File Explorer and navigate to LYLE/Data/to\_clean. Drag and drop a folder from the OneDrive folder to here. It will take a long time.

**IDEAS Software Setup**

1. Download (clone) IDEAS\_obs repository from Github in Desktop\LYLE
   1. Search “cmd” in search bar and open the command prompt
   2. Navigate to the Lyle folder by typing: cd Desktop\LYLE
   3. Download IDEAS by typing: git clone https://github.com/hugonvilla/IDEAS\_obs
   4. Enter Github personal identification token when prompted
2. To download IDEAS updates:
   1. Navigate to the IDEAS folder: Desktop\LYLE\IDEAS\_obs
   2. Type “cmd” (without quote marks) in the address bar (top of the window that shows the location of the folder)
   3. When the command window opens, type “git pull”
   4. Search “cmd” in search bar and open the command prompt
   5. Navigate to the ideas folder by typing: cd Desktop\LYLE\IDEAS\_obs
   6. Download updates by typing: “git stash” and then “git pull”

**Puck.js Setup**

1. Update puck.js firmware to version 2v15 following the instructions [here](https://www.espruino.com/Puck.js?print#firmware-updates).
   1. Note: if the pucks are already labeled, do not reinstall the firmware. Those pucks are ready.
2. Write to FLASH (not RAM) the modified diract.js code located in the IDEAS\_obs folder (the original is [here](https://github.com/reelyactive/diract/blob/master/puckjs/diract.js) but just for reference) in each puck following the instructions [here](https://reelyactive.github.io/diy/puckjs-dev/) (except we have to send to FLASH, not RAM), so the code doesn’t change, even if the battery is removed. Change the instance id to the last 4 digits of the puck’s MAC address. You can obtain the MAC address for the puck in the [Espruino Web IDE](https://www.espruino.com/ide/) console by running NRF.getAddress()
3. Physically label each pucks with the last 4 digits of the puck’s MAC address using the label maker.

**Owls Setup**

1. The owls should be plug and play. Simply connect the laptop to the reelyactive wifi network, username: reelyActive, password: owl-in-one.
2. If needed, the system can be reconfigured following the instructions [here](https://reelyactive.github.io/diy/oio-wlan/)
   1. Owls should only need to be reconfigured when there are multiple kits deployed at the same site; Owl networks in neighboring classrooms can cause issues if they are all named “reelyActive”.
   2. To rename a network of Owls (which consists of one Access Point (AP) and multiple subservient Owls), follow these steps:
      1. Plug the AP into a computer with the [T2 CLI tool](https://tessel.gitbooks.io/t2-docs/content/API/CLI.html) installed (via Node).
      2. Run these commands:

t2 wifi --off

t2 ap -n "reelyActive[UNIQUE NUMBER HERE]" -p "owl-in-one"

t2 ap –on

* + 1. Unplug the AP from the computer and plug it into a wall power outlet or battery and wait for it to boot up.
    2. Plug a non-AP Owl into the computer and run the following command. Unplug and repeat with every non-AP Owl

t2 wifi -n "reelyActive[NUMBER CHOSEN FOR AP]" -p "owl-in-one"

* 1. This should fully reconfigure an Owl network so that it does not conflict with others at the site. A short test observation is advised to make sure that the network works properly.

**Voice recorders Setup**

1. Configurations:
   1. Save to SD card
   2. Scene select: Auto voice rec
   3. Rec mode: LPCM 44.1kHz/16bit
   4. Built-In Mic sensitivity: For voice, auto
   5. Focused/Wide: OFF
   6. Recording filter: NCF
2. Synchronize time with local time
3. The labels in the recorders are not attached to the software. If the label stickers are lost, proceed to rename them with any 3 digit number different from the existing recorders at your site.