**Upload .hex Files to Arduino Nano using xLoader on Chrome OS:**

Follow the instructions below to install xLoader on your Chromebook

**Setup:**

* Click on the clock at the bottom right corner of your screen
* Click on the **gear** at the top right of the pane that opens
* On the left side of the settings menu, click on **Linux (Beta)**
* Click **Turn on**
* Click **Next** and then **Install**
* Wait for Linux to install, the terminal will open
* Go to <https://github.com/binaryupdates/xLoader> and click the green button that says **Code**
* Download the ZIP
* In the file manager of your Chromebook copy the xLoader-master.zip file to **Linux files**
* In the terminal on a new line type **unzip xLoader-master.zip**

**Installing Wine:**

* In the terminal paste the flowing lines using right click or CTRL+SHIFT+V (make sure to let each command finish before pasting in the next one). When prompted type “y” to install Wine and Nemo.
  + sudo dpkg --add-architecture i386
  + wget -nc https://dl.winehq.org/wine-builds/winehq.key
  + sudo apt-key add winehq.key
  + echo "deb https://dl.winehq.org/wine-builds/debian/ buster main" | sudo tee etc/apt/sources.list.d/wine.list
  + echo "deb https://download.opensuse.org/repositories/Emulators:/Wine:/Debian/Debian\_10 ./" | sudo tee /etc/apt/sources.list.d/winehq.list
  + sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys DFA175A75104960E
  + sudo apt update
  + sudo apt install --install-recommends winehq-stable
  + winecfg
    - Click **Install** in the Wine window to install Mono
    - Click **Install** in the Wine window to install Gecko
    - Close Wine
  + sudo apt install nemo

**Running xLoader:**

* Plug your Arduino Nano into your computer
* In the terminal type **cd xLoader-master**
* In the terminal type **wine xLoader.exe**
* In the xLoader window click the three dots and navigate to your .hex file saved on your computer
* Change the Device to **Uno(ATmega328)**
* Select a COM port
* Click upload

**Your .hex file is now uploaded**