Hardware Coding

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**To run the Raspberry Pi Camera Module 3 NoIR:**

The hardware would require an update for the Raspberry Pi in order to make it work properly, best case scenario is to update the Pi fully using these commands:

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| **sudo apt update**  **sudo apt full-upgrade**  **sudo rpi-update**  **sudo reboot** |

Afterwards, it is best to disable the legacy camera inside the Interface Options, then afterwards rebooting it and using the camera to take a picture:

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| **sudo raspi-config**  **sudo reboot**  **libcamera-still -o image.jpg -t 5000** |

**(5000 represents it takes 5 seconds to take the picture)**

**To run the Mini USB Microphone:**

This hardware just requires to use this code to record for 5 seconds (As long as you updated Raspberry Pi before):

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| **arecord -D plughw:1,0 -d 5 test\_audio.wav** |

* **arecord: a command line utility for linux to record audio**
* **-D: Specifies the device**
* **Plughw:1,0: the name of the device (Mini USB microphone)**
* **-d 5: will record for 5 seconds**
* **Test\_audio.wav: will output as “Test\_audio.wav”**