CMPE 244
Homework GPIO Testing

1. Bring up the target platform of your choice, e.g., Jetson NANO or Pie.

2. Use 40 pin connector of the target platform, NANO or Pi, select the following pins for input and output testing for NANO:

CPU (NANO)	J41 Connector	Note
GPIO 78	J41-12	Input
GPIO 79	J41-40	Output

Note, if Pie is the target platform, then create a connectivity table like the one above to realize your design.

2. Build a prototype circuit for GPIO input and output testing. Run GPP testing functions (for the NANO board discussed in the lecture, the testing program is posted here on the class github https://github.com/hualili/CMPE244/blob/main/2021F-115-gpio-nano-v2%20(copy).c if you are using Pie, do google search and make minor update accordingly.

3. Your program output function should be able to turn on LED when CPU sending 1, and turn it off when CPU sending 0.

The input function should be able to read logic 1 when the testing circuit toggle the switch to connect to Vcc (3.3 V), and logic 0 when the testing circuit switch is toggled to the GND.

What to submit:
1. Provide stand-a-lone source code and the executable binary.

2. A photo of GPIO output testing result with LED on.

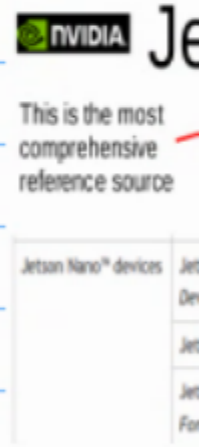
3. Submission to Canvas on line.

Appendix A. Reference in the Lecture Note, pp. 33, Oct.18, 2021.

Homework Due Oct 27th, Submission to CANVAS.

1. Bring up the target platform.
   e.g. Jetson NANO or Pie.
   (Submission of a photo. Showing System Setup and Screen of the target platform;
2. photo of your GPIO Circuit
   a. Input CKT: (S/W or Jumper Wire to Allow input "0" or "1")
   b. Output CKT: with LED on.
3. Submission
   3.1. photos in 2.
   3.2. Source code + Binary (Executable)
   3.3 Readme file.

- please zip them into One file, Submit to SJSU CANVAS.



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