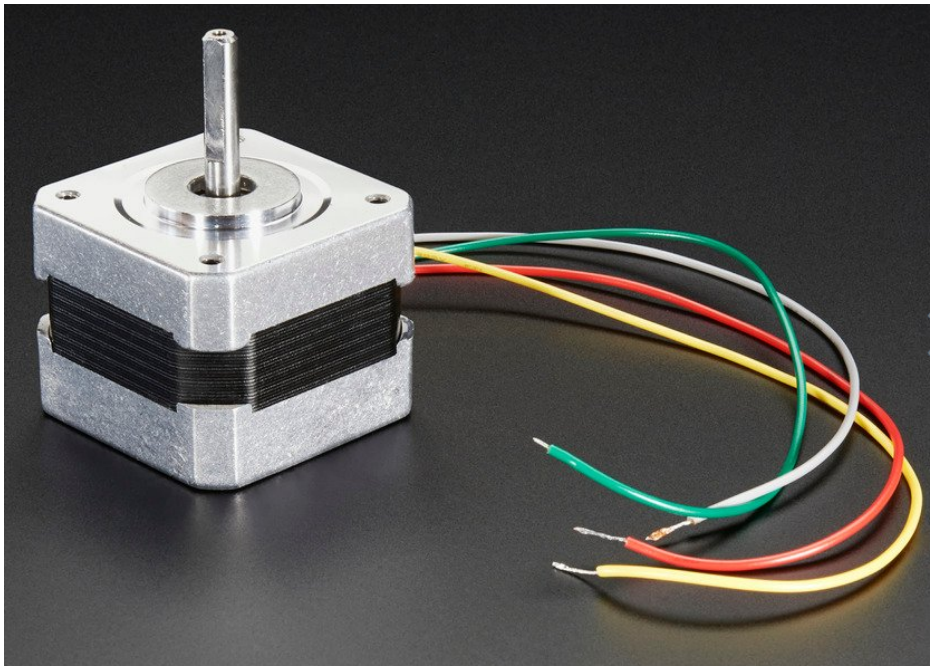
CMPE 244
Homework Kernel Source Distribution and Tool Chain

Part I:
1. Down load OS kernel source distribution package from your chosen platform, Pie or Jetson NANO, and install the tool chain, and
2. Run make menuconfig, to get to GPIO device driver;
3. Modify Kconfig file to add your GPIO device driver selection on the UI (User Interface) of the menuconfig, just the UI part, you do not have to consider the actual driver program implementation at this point. Then do screen capture of the UI.

Part II:
1. Purchase
1.1. Stepper motor, NEMA 17



Spec: Stepper motor - NEMA-17 size - 200 steps per revolution, 12V 350mA
Reference link: https://www.adafruit.com/product/324?gclid=Cj0KCQjwt-6LBhDlARIsAIPRQcIj9NnvPYwPptOYxeUhVRo3Zv8rTke-l5ybuw9-dkcmBmBO_wrn7gIaAtRREALw_wcB

You can find the vendor of your choice. Use the above specification when making the purchase.

1.2. Stepper motor drive, the key specification for the stepper motor drive for the project is (1) current, upto 1500 mA, (2) output: 4 pins, A+, A-, B+, B- (for 4 wire stepper motor. NEMA 17)

Reference: https://www.google.com/search?client=ubuntu&channel=fs&q=nema%2017%20stepper

%20motor%20driver%20arduino&ved=2ahUKEwiDzIjK3fDzAhURHjQIHXO0CtgQmoICKAB6BAgEEA4&biw=1363&bih=627&dpr=1.2

What to submit:
1. readme for the Kernel source and tool chain down load and installation;
2. photos of the screen capture of Part I.2, and Part I.3;
3. photos of Part II.1.1 and Part II.1.2.

(END)