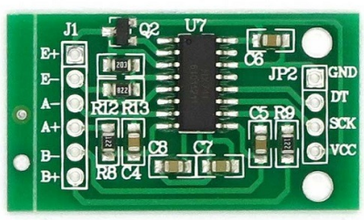
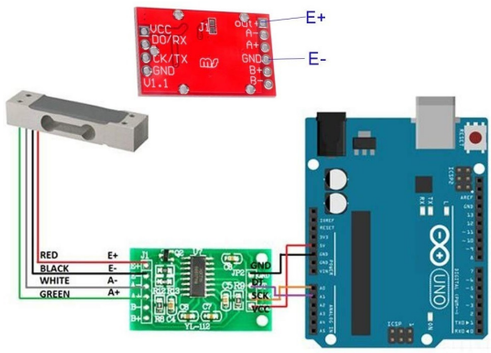
0.1 Research and Evaluation for Loadcell-Interfacing

0.1.1 HX711 Interface Module and Load cell

Definition: A Load Cell serves as a sensor that transforms applied force, encompassing pressure, rotational force, compression, or tension, into quantifiable electrical signals. The load cell generates an output in millivolt range; therefore, it is essential to magnify this signal into a higher-level amplitude and subsequently convert it into a digital format for further processing. To accomplish this task, the HX711 interface module could be used. This was recommended by a professor. This module serves to amplify the load cell's low-voltage output and transmit it to the microcontroller for weight calculation. The illustration below depicts the HX711 interface module.



(a) HX711 Interface Module



(b) HX711 Interface Module and Load cell using Arduino