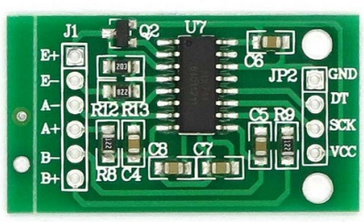
SPRO3 report

Botond Bencsik
Casper Hvide Bjerre Simenel
Felix Leo Hoch
Henrik Maarten Bongers
Laura Barney
Arthur Kibalama

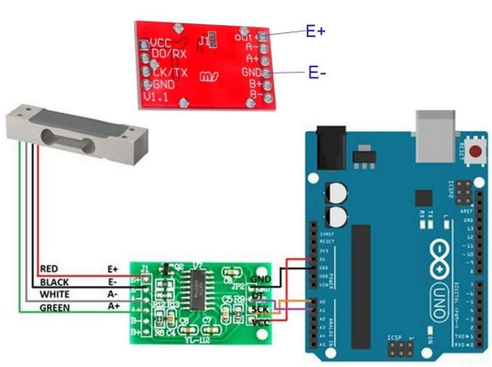
08/09/2023

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, we employ the HX711 interface module. This module serves to amplify the load cell's low-voltage output and transmit it to the Arduino for weight calculation. The illustration below depicts the HX711 interface module.



(a) HX711 Interface Module



(b) HX711 Interface Module and Load cell using Arduino