PUT WEIGHT

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Abstract

This is an IOT based project which mainly includes a sensor a load cell and components. This will help the user to get informed about the exact weight of their luggage. This whole setup will generate a digital output over the phone using an application.

This application will work in that way, that if the luggage weight exceed the limit the user will receive notification regarding that which will help them in saving unnecessary penalty, time as well as make the luggage intelligent.

Index terms: *load sensor result, mobile application.*

Introduction

This application will work in that way, that if the luggage weight exceed the limit the user will receive notification regarding that which will help them in saving unnecessary penalty, time as well as make the luggage intelligent.

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Proposed work

There are various Digital Weight Measuring (DWM) instruments available in the market which are used to measure and display only weight of the grains and always stay stand still. The paper here encloses the modern weight measuring instrument named “Put Weight”. The approach towards Portable Weight Measuring Instrument displays the weight of the luggage, regardless of this it is made compact and light in weight (portable). These advantages of our system provide time saving and smart work. It is cheaper than other heavy electronic weighing machines. There is compact and lightweight Arduino family board “Arduino pro mini” is used which has capability to store data and to perform the logic operations. The paper presents new technique for weight measurement by using Arduino pro mini.

Working of the setup

This is basically HX711 Load Cell amplifier interface. Interfacing 40Kg load cell to the arduino using HX711 Load cell amplifier module. HX711 is a precision 24-bit analogto-digital converter (ADC) designed for weigh scales and industrial control applications to interface directly with a bridge sensor. The input multiplexer selects either Channel A or B differential input to the low-noise programmable gain amplifier (PGA). Channel A can be programmed with a gain of 128 or 64, corresponding to a full-scale differential input voltage of ±20mV or ±40mV respectively, when a 5V supply is connected to AVDD analog power supply pin. Channel B has a fixed gain of 32. Onchip power supply regulator eliminates the need for an external supply regulator to provide analog power for the ADC and the sensor. Clock input is flexible. It can be from an external clock source, a crystal, or the on-chip oscillator that does not require any external component. On-chip poweron-reset circuitry simplifies

digital interface initialization. There is no programming needed for the internal registers. All controls to the HX711 are through the pins.

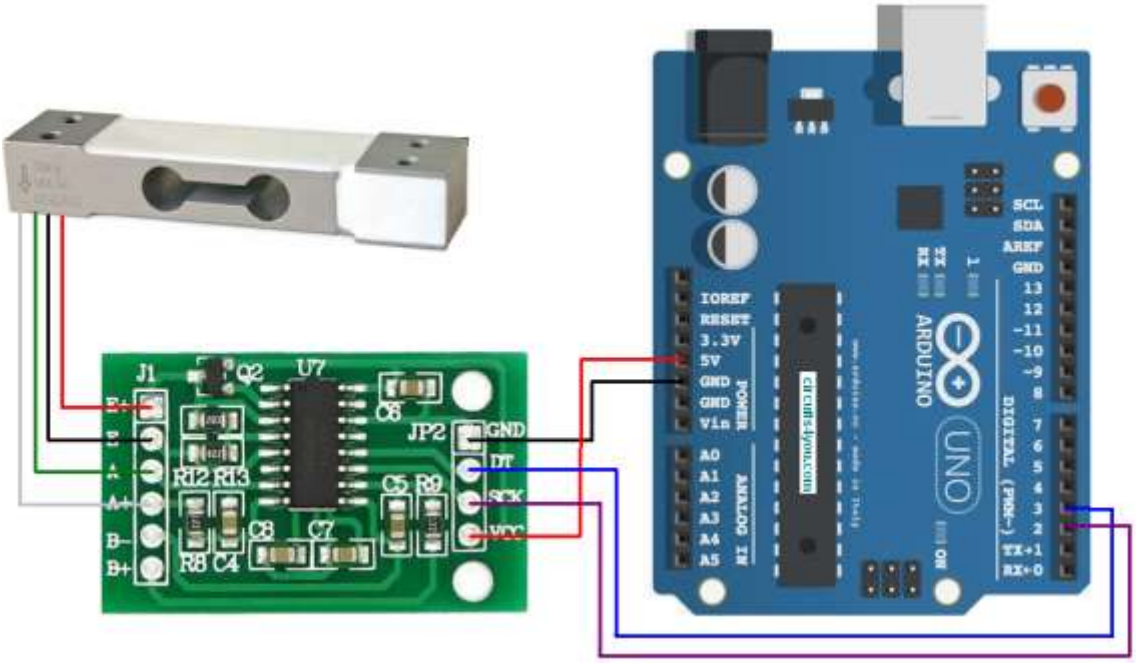
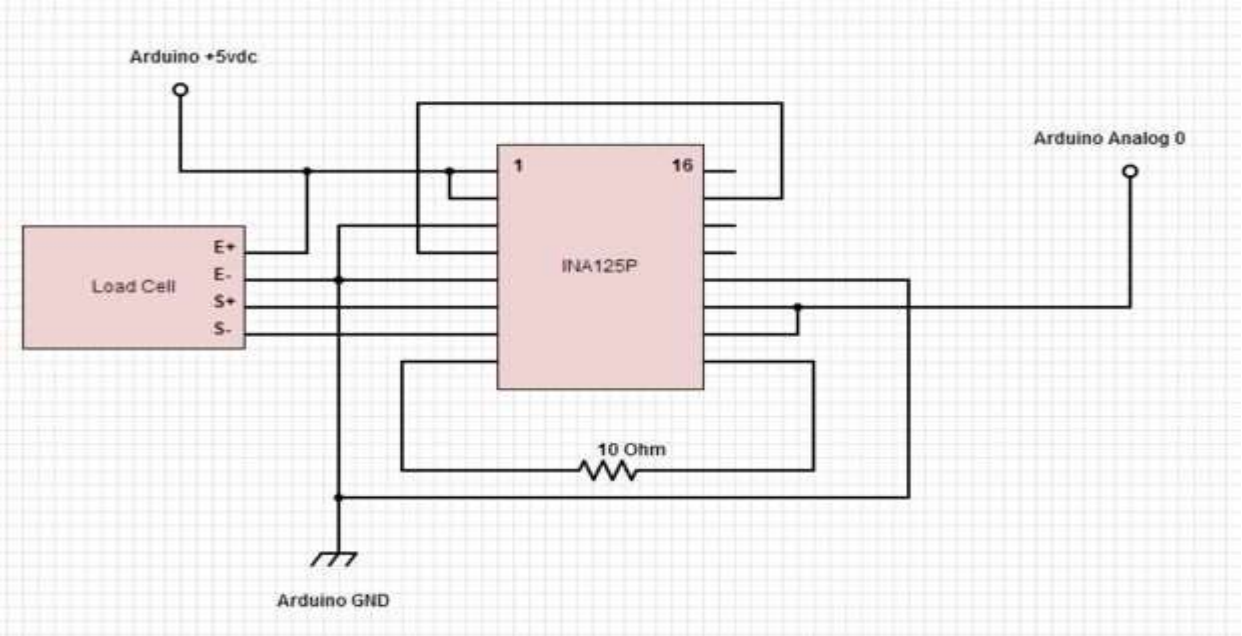


Fig 1. System working model



And then the output will be printed over the application and the user will be informed through the popup notification.

Conclusion

Inspired by the features of existing system the application will involve more features and make it more entertaining.

Future enhancement

After the model gets successful the moto is to promote my project to some luggage companies and making travelling more entertaining hiring people will update the data and make it easier to add more real-time features.

References

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