# Low-Cost Sensor Reading Improvement

In the data folder, you can find two files: BoxMod and JUUL. These two files have the same number of columns but different number of rows. The first column represents ground truth values. The rest of the columns represent low-cost sensor readings. If values are at same row, this means these values are collected at the same timestamp. You can compare your model predictions and low-cost sensor readings with the first column to check accuracy.

## What should you do?

You are required to build machine learning models to improve low-cost sensor readings. The BoxMod sensor data is collected in a known environment and JUUL sensor data is collected in an unknown environment. The goal is to improve cheap sensor accuracy in the unknown environment (i.e., JUUL as testing and BoxMod as training). You should think about the following questions:

* How many machine learning models should you build?
* Which machine learning methods should you use?
* Do I need to normalize the data and inverse-normalize the data?

You should test your method performance using the 5-fold cross validation method, show me your R2 and RMSE values, and share your sample code with me using GitHub.