

INTEGRATING "REAL WORLD" DATA COLLECTION AND ANALYSIS INTO PHYSICS LABS

Immaculate High School - Danbury

2022 - 2023 PROJECT UPDATE



Grant Amount: \$11,106
Project Cost: \$11,106



63 Students Impacted
Grades 11-12

PURPOSE: To enhance AP Computer Science and AP Physics courses and teach students to collect and interpret "raw data" using an API (Application Program Interface) and computer code that they develop, instead of relying on pre-packaged software that does most of the data analysis for them. This data collection emulates what they would see in college or the work environment.

IMPACT: Deploying this equipment elevated student labs to the college level which enabled us to meet the requirements of a UCONN ECE Physics class. Instead of capturing just a few lines of data manually, students learned to navigate through a spreadsheet of thousands of lines of collected data and map data into charts for analysis. Students learned to use the new Bluetooth technology to connect the sensors to the data collection devices. This wireless connection served two major purposes: 1) to collect data with precision and accuracy and 2) to upload the data collected to an excel spreadsheet to facilitate further data analysis.

FUTURE PLANS: This program will continue as the data collection devices purchased have a lifetime of five years or more.

