

To: Evelyn Encarnacion
INCOSE STEM Award Coordinator
San Diego Chapter of INCOSE

From: Hickman Elementary in San Diego

- **How Funds Were Spent:**

5 of Arduino Starter Kits (\$76.99)

2 of Little Bits Electronics Deluxe Kit (\$189)

2 of Meccano-Erector- Super Construction Set (\$84.99)

4 of K’NEX Education – Bridges Intro to Structures - (\$27.30)

3 of K’NEX Education Investigating Solar Energy – (\$63.30)

Subtotal - \$1,232.03

Tax - \$66.88

Grand Total - \$1,298.91

- **The program/teaching that was accomplished with what was purchased.**

After school and lunch program addressing STEM standards. Students solve real world problems using construction, electrical, circuitry, and basic machines. Students also create basic circuitry and machines on their own to design and build projects.

- **The number of students benefiting from the program/teaching**

At lunch each 4th and 5th grade teacher can send 5 students. They try to rotate the passes so all students have a chance to come in. We also have several special education students who arrive. We work with about 25-30 students each day at lunch, but the faces change. Most 4th and 5th grade students have participated in at least one lunch time tinkering activity. Some return frequently. A more stable group of students joins the afterschool program. Most days this is also a packed room with 20 students.

- **Personal observation/opinion on the benefits that the grant offered to their teaching and the students learning**

Students are able to do hands-on problem solving projects that they would not normally be exposed to in a General education classroom. They are learning how gears and levers work as well as following fairly complex blueprints. They are also learning basic electrical circuitry and how motors work. They are also learning to work as a team to complete tasks. Special Education students are achieving high levels of success in this environment. A large number of girls are involved in the engineering process in this environment.



