

Building

robots from electric waste





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Meet the team

Below is a summary of the organizations behind this initiative.



educate. is a grassroots NGO located in the rural department of Santa Bárbara, Honduras. We work to empower children and youth through education, striving for a future with abundant opportunities for young people and their communities to come together, unimpeded, to learn, lead, and grow. We run a high school and university scholarship program to support youth in continuing their education, a Youth Centre, and Public Library with programs focused on STEM, art, and sports. Their programs reach over 3,000 children and youth each year. Strong local leadership is central to everything we do, ensuring profound impact and long-term sustainability.



STEM IN A BOX distributes didactic kits allowing at-risk youth to build robots from electric waste. The combination of theory and practice leads to the following results:

- **20%** improvement in negative student perspectives on math and science,
- **73%** improvement in students' mathematical understanding by emphasizing the practical application of mathematics during robot assembly,
- **66%** increase in student interest in pursuing a career in STEM.

Project Activities

The beneficiaries of our workshop are students between 14 and 18 years old. Students will learn the following topics during the assembly of three robots.

1

Hydraulic Arm

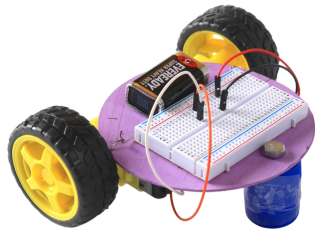
- The relationship between science and mathematics
- Introduction to Physics
- Introduction to Hydraulics
- Design Thinking



2

Electric Car

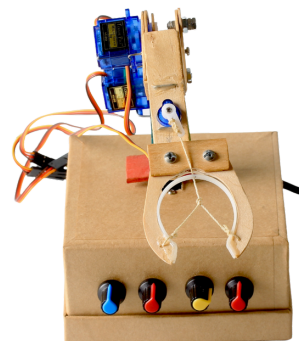
- Introduction to electricity
- Ohms
- Parallel circuits
- Series circuits
- The Scientific Method



3

Robotic Arm

- The relationship between electricity and robotics
- Servo motors
- Introduction to Programming
- The Arduino language



Ask

This initiative will provide 30 hours of training to 30 youth in Trinidad, Santa Bárbara, Honduras. Below are some ways your company can support us.*

1

Sponsor a didactic kit

- Each kit contains the materials for the assembly of three robots
- The purchase of a kit benefits 3 students
- Price: 50 USD

2

Sponsor 5 didactic kits

- Each kit contains the materials for the assembly of three robots
- The purchase of 5 kits benefits 15 students
- Price: 250 USD

3

Patrocina la alimentación de 5 estudiantes

- This activity will be a five-day training
- Students will receive a midday snack and lunch
- Price: 100 USD



*We are happy to recognize your company's support in showcasing your logo in our project promotions.