

ENGINEERING ABROAD 2021-2022

Cabrillo College



THE TEAM



HANDS ON EXPERIENCE / WORK

- Our team was divided by four projects:
 - Terraces & concrete (**civil, environmental, industrial**), solar (**electrical and aero**), worm bins and bio tanks (**mechanical**)
- Put classroom knowledge to use & built hands-on skills
- Witnessed our projects work and run
- Collaborated with classmates, Dream Volunteers, and local kids



OUR PROJECTS



TERRACES & CONCRETE



WORM BINS & BIOTANKS



SOLAR TEAM

- off-grid installation
- 2 panels, 1000W total
- Powering the 750W coffee mill/processor
- Replaces gas generator with emissions-free solar energy

The 2021-2022 team worked on:

- Installing completely new system (batteries, charge controller, DCAC inverter, load center, switches and breakers)
- Installing rails, panels, and junction boxes on roof
- Wired the system together all around La Biofabrica





RESULTS AND OVERVIEW

- Coffee cherry processor powered by solar, replacing emissions from gas generator
- Terraces were excavated and laid with concrete for future Biofabrica
- Biotanks and filters fixed to recycle water and send cherries to processor



PROVIDENCIA DE DOTA



SUSTAINABILITY, THE MISSION

conventional



organic

WATER USE



THE MEAT & DAIRY INDUSTRY USE: $\frac{1}{3}$ OF EARTH'S FRESH WATER

The text is centered, with the fraction $\frac{1}{3}$ prominently displayed in a large, bold, orange font. Above and below the fraction are three wavy lines representing water.

USA WATER USE:



MAKING NEW FRIENDS & CONNECTIONS

- Meeting and becoming close with new community
- Making new friends in Providencia
- Making new connections with the locals



DREAM VOLUNTEERS & THE YOUNG DREAMERS





HOW IT'S CHANGED OUR CAREER PATHS



CABRILLO ABROAD PROGRAM WEBSITE

- <https://www.cabrillo.edu/engineering/engineering-abroad-program/>
- <https://greencommunities-cr.org/>

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The Cabrillo College Engineering Abroad Program began in 2013 and is one of the few engineering

2020-2022 Engineering Abroad Program

Providencia de Dota, Costa Rica; July-August 2022
Projects: Sustainable Coffee Production Facilities and Supporting Infrastructure

[Delegates' Photos & Bios](#)

[ENGR 98A/B Course Outline](#)

[January 2020 Abroad Experience Schedule](#)

[Blog](#)

Student Reflections (coming soon)

Presentations (Individual) (coming soon)

2019-2020 Engineering Abroad Program

2018-2019 Engineering Abroad Program

2017-2018 Engineering Abroad Program

2016-2017 Engineering Abroad Program

2015-2016 Engineering Abroad Program