

# 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



# WATER USE



THE MEAT & DAIRY INDUSTRY USE:  **1/3** OF EARTH'S FRESH WATER 

USA WATER USE:



DOMESTIC



ANIMAL  
AGRICULTURE

# 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/>

A large blue banner with white text. At the top left is the word 'Engineering'. Below it is a large, bold, white 'Engineering Abroad' title. To the right of the title is a white rectangular box containing the 'Engineering Abroad Program' logo, which includes a globe and the text 'Engineering Abroad Program'. Below the logo is a smaller text 'Working Together For A Better World' and a purple graduation cap icon. At the bottom left of the banner is an orange 'Donate Now' button. The bottom of the banner has a white footer bar with a 'Engineering' link and a navigation menu.

<b>2020-2022 Engineering Abroad Program</b>	▼
Providencia de Dota, Costa Rica: July-August 2022	
Projects: Sustainable Coffee Production Facilities and Supporting Infrastructure	
<a href="#">Delegates Photos &amp; Bios</a>	
<a href="#">ENGR 98A/B Course Outline</a>	
<a href="#">January 2020 Abroad Experience Schedule</a>	
<a href="#">Blog</a>	
Student Reflections (coming soon)	
Presentations (Individual) (coming soon)	
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<b>2019-2020 Engineering Abroad Program</b>	▼
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<b>2015-2016 Engineering Abroad Program</b>	▼