In May 2013, members of the CUA Engineers Without Borders (EWB) student chapter traveled to the rural community of Naranjaty Guazu in northeastern Paraguay. The group included three undergraduate students — senior John Burns, junior Hannah Gillis, and sophomore Frances Anne Tosto — chapter adviser John Judge, associate professor of mechanical engineering, and their professional mentor, civil engineer Clifford Schexnayder. Their mission was to perform an initial site assessment for a project to design and construct a honey processing facility.

The campesinos of rural Paraguay are peasant farmers who raise livestock and grow crops, predominantly for their own use. Georgia native Lester Moore first came to Naranjaty Guazu (which means “Big Orange” in the local Guaraní language) as a Peace Corps volunteer in the early 90s, to teach the community members to keep beehives on their farms and sell the honey in cities as an source of cash income. A passionate beekeeper, Moore has remained in Paraguay and devotes his time to helping residents harvest, process, and distribute their honey, as well as educating new beekeepers. For years, he has used space in his own kitchen for the equipment necessary to extract honey from the honeycomb and then filter and bottle the honey.

The CUA EWB chapter will design and construct a separate facility for the community to house honey processing equipment for use by all the local beekeepers. The building will be constructed using local materials and must be engineered to protect the honey from extremes of temperature and humidity. Once the processing operation is moved into the new facility, Moore plans to train all his beekeeper associates to extract, filter, and bottle their own honey, freeing him to dedicate his time to outreach efforts to bring beekeeping to more Paraguayan farmers.

The weeklong trip involved two days of travel in each direction, including a seven-hour bus ride between the Asunción, the capital of Paraguay, and Horqueta, the nearest town to the village of Naranjaty Guazu. The group spent four days in the community, discussing preliminary plans with Moore and local contractors, surveying possible sites, and meeting with members of the community, including some of Moore’s beekeeper protégés. They also enjoyed local cuisine, cooked by one of Moore’s neighbors, and learned about the history and culture of the country and its native Guaraní people. The chapter looks forward to returning to Paraguay with a larger group once design work is complete to begin construction of the honey processing facility.