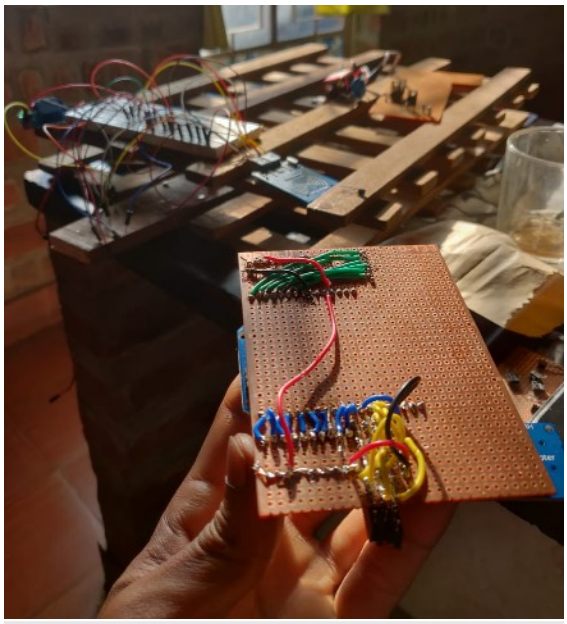
Wildlife Technology R&D Program

This summer FPI is focused on deploying a number of technologies that will automate data collection at the Los Amigos Field Station. We are looking for research assistants (RAs) to be part of the deployment, testing, troubleshooting, and validation team. This team will be led by FPI's Documentary Photographer and Technology Engineer, Ishaan Raghunandan. The cost of joining this program is the same as our other research assistantship programs, $450/week, and includes local transportation to and from the field site, food and lodging, and technical training. At the conclusion of this program you will have helped in establishing the following new technology systems at the Los Amigos Biological Field Station:

Weather system: Although this is not a novel idea, Los Amigos does not currently have an automated system for measuring daily temperature, humidity, and precipitation. Commercial systems are expensive and difficult to repair when they break (as they invariably do) in the field. Our prototype is inexpensive, solar-powered, and modular. Hence, when humidity takes its toll, it is easily replaced or exchanged. As an RA, you will learn how the system works from the inside out, and you will test its deployment at various locations along the trail system to validate accurate data collection.

The NatureChip - an all-in-one Camera Trap, RFID Reader, and Weigh Scale: Since our annual primate mark-recapture program began in 2009 we have had only two ways of tracking animals over time; 1) We re-trap them to read the RFID tag that each was given at their first trapping event, or 2) we track them by sight/sound and radio telemetry within their home-ranges to document presence/absence (based on individualized beaded collars or bleached tail patterns). Option 2 is only viable up to 1 year from the date of capture, as our collars are not permanent. Option 1 requires extensive planning, man-power, and is expensive to carry out. Hence, we are beyond excited to unveil a novel system that can simultaneously record full body photographs, fine-scale animal weight measurements, and RFID tag numbers when triggered. As an RA you will learn how the system works from inside out, and you will deploy it for testing on several of our longstanding primate focal groups. The data you collect will be contrasted with the data collected by the mark-recapture team, and your participation will be critical in optimizing field placement/positioning, data acquisition, and protection from the elements.

The Basestation: As if the first two systems weren't enough to transform our research at the Los Amigos station, we are also developing and hope to deploy a local networking system for remotely accessing weather and animal data from any deployed device. Networks are energetically costly, and electricity is one of our most limiting resources in the field. Therefore, our basestation and associated devices are programmed to turn on for a short period of time each day to search for connections, and when found, remotely download any data. When this system is complete, the basestation will be programed to upload the data to the web through the WIFI system. Imagine sitting in a cafe or at home and logging onto a website to find out how an animal's weight fluctuates over the year. Given enough data, we might even detect major life events such as pregnancies and births, which will give us better estimates of female reproductive success than even before.



If you're like us, then your mind is exploding with exciting research applications for this technology, so please help by signing up or spreading the word about this training program! We have only a few months before we begin this work in May, so every day counts. As with our other research programs, there may be possibilities to partake in publishing our findings, depending on our success in the field, completion of the assistantship program, and a commitment to co-authoring the publication.

Must be at least 18 years, prior field experience not required

Program runs May 17 - June 22, with a minimum 1-week commitment ($450/week)

Application deadline is April 14, 2019

Apply online at https://fieldprojects.org/research/

Questions may be directed to info@fieldprojects.org