

Title: Automated Device to Measure Forces and Frequency of Vibrations in Mosquito Bites

Names: Kevin Brosche and Jake Feala

Client: Professor Amit Lal, Dept. of Electrical Engineering

Date: Reporting progress up to September 12, 2001

Problem Statement: To design an automated device to sense and quantify forces and vibrations present in mosquito bites.

Restatement of Team Goals: N/A

Summary of Accomplishments: We prepared a proposal of our project and submitted it to professor Tompkins. Because our project was not included on the initial list, it was necessary to outline the reason for the project, its details of the project, and our goals for the semester.

Statement of Team Goals: This next week we would like to do the following:

- Draft a preliminary PDS that will help us to determine the challenges we face and how to approach them. It will also help us to identify the components of the device so we can develop a plan of action for the semester.
- Research the anatomy and social/feeding behavior of mosquitoes. We will also be looking for studies that investigate the response of mosquitoes to various attractants, and anything about how mosquitoes bite.
- Develop a schedule for the semester.
- Possibly run some preliminary tests on the existing device to identify major areas for improvement.

Project Schedule: We have not yet developed a detailed project schedule, but a very general plan for the semester is as follows:

1. Research mosquitoes and data recording devices that will be necessary for a self-contained device.
2. Conduct preliminary tests using the existing device.
3. Identify areas for improvement and make improvements to the device. This involves analyzing the signal to determine if the signal coming from the device is adequate. And if it is, what does it mean?

Difficulties: Jake and I are a two person group instead of four like most others. Neither of us has much experience with programming or developing software; an area that could become a significant part of our project.

Activities:

- Writing a proposal: 3 hours (Jake and Kevin)

- Meeting with Prof. Lal: 0.5 hours (Jake)
- Progress Report: 0.5 hours (Kevin)
- Looking over the current device: 1 hour (Jake and Kevin)