IPRO 324: Power Measurement for Road Bikes: Toward a Universal Solution

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IPRO 324

It takes a team!
INTERPROFESSIONAL PROJECTS PROGRAM

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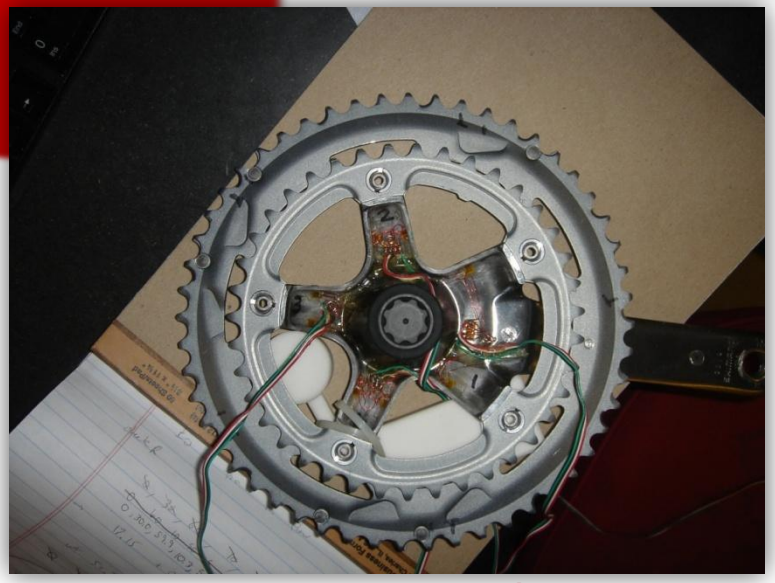
IPRO 324 intends to develop a power meter that not only can be applied to any crank set but that will accurately collect and transmit data to current cycling computers as well as cost significantly less than comparable systems.



- Have the system successfully communicate between the circuit board and the Garmin computer system.
- Design a housing for the circuit board that can be attached to most road bike crankshafts and still fit the circuit board and its components.
- Develop a high level interface for the current software.
- Install a port into the device that can be used for future software or firmware upgrades.

Michael Dvorscak

Electrical

James Lee

Jerome Wisniewski

Computer Science

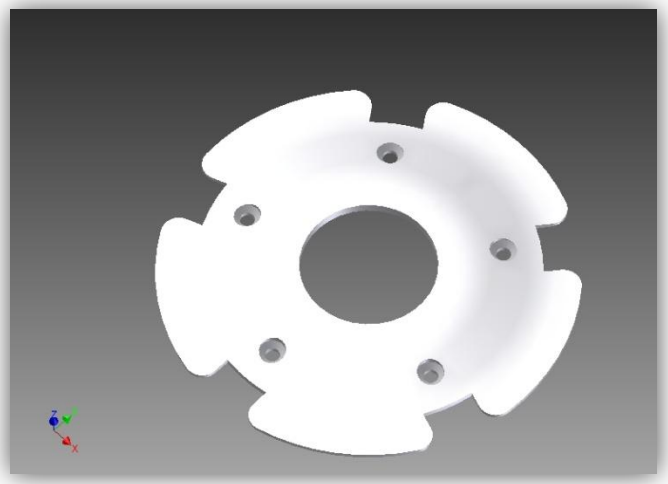
Preston Andrews

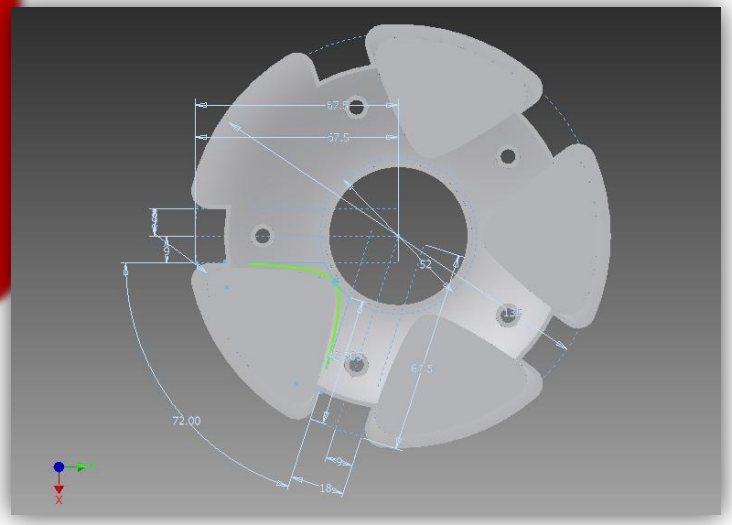
Michael Fabian

Mechanical

Libby Frebes

- Obtained design files from last semester
- Talked with member of previous semester about their undocumented ideas for the design
- Documented bugs found
- Set up breadboard to flash microprocessor
- Analysis and integration of previous semesters work





- Lack of documentation from previous semesters
- Acquiring the correct software
- Obtaining files from previous semesters

- Establishing communication between the circuit board and the Garmin unit
- Testing the microprocessor code which communicates with the ANT hardware
- Fitting a circuit board into the housing unit

- Faculty Collaboration
- Outside sources

Questions?

Preston Andrews Mike Dvorscak Michael Fabian Elizabeth Frebes James Lee Jerome Wisniewski