Esperto Smartwatch

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Esperto Labs Winter 2018 WEEF Proposal

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Description of Proposal

Esperto Labs is a brand-new student design team whose first goal is to design a new open-source smart watch from the ground up. A large interest in our team and an overall interest in developing wearable technologies from the student community has grown our team from 2 founders to a small team of 13 dedicated and passionate Waterloo Engineering students. On this team, students are able to work independently or cooperatively on a feature of the watch such as wireless communication or heartrate data collection, come together at the end of the week and show it off to the rest of their teammates. If approved, their feature will be implemented into the next iteration of the Esperto Watch.

The Esperto Labs team has manufactured assembled, and successfully tested the first prototype and is currently working on the second version of the watch. The team is asking WEEF for funding pertaining to purchasing 2 new printed circuit boards, an Atmel ICE debugger in order to program the microcontrollers, and additional funding to fund the 3D prints which we plan to purchase from the E5 printers.

Proposal Benefits

Unlike many traditional design teams, students on the Esperto team are given the opportunity to not only choose what they get to work on, but actually develop and take ownership of the feature they have worked on. Students are able to use the knowledge they learned in previous courses and work terms, but also explore new avenues and skills in concepts which they had never worked with before.

Over the last 5 months, money was raised to purchase the hardware for the first iterations of the watch. The team is asking WEEF for sponsorship to be able to continue their hard work on the next iterations of the watch. Furthermore, funding from WEEF will result in more prototypes being readily available for students to work on. Currently, the team only has 2 functioning prototypes resulting in team members having to wait to attempt to implement and test their feature into the final solution. Funding would resolve this problem and allow team leads to pursue and recruit more Engineering students, allowing more talented students to have the opportunity to experiment and build upon their own smartwatch and join the Esperto Labs team!

Estimated Equipment Lifetime

The printed circuit boards and 3D prints will be used until the next official versions are printed (approximately a year). The Atmel ICE Debugger has no finite life span and will be used for at least 2 years.

Implementation Schedule

All components will be purchased immediately to allow team members to begin using them right away!

Additional Information

None.

Cost Breakdown

Item	Option1	Option2	Option3	Option4
Atmel Ice Debugger	$ 180	$ 180	$ 180	$ 0
3D Prints	$ 110	$ 55	$ 0	$ 0
Printed Circuit Boards	$ 450	$ 240	$ 0	$ 0
Total	**$ 740**	**$ 475**	**$ 180**	**$ 0**