IPRO 353
Microcontroller Business Development

Objective

The objective for IPRO 353 was to design a microcontroller for use in the educational field, and to develop a small business around this microcontroller, while being affordable for the average college student.

Organization

IPRO 353 was broken up into three teams: a technical team, a commercial team, and a website team. The technical team worked on developing the design for the microcontroller, as well as outsourcing to produce the final prototype. The commercial team analyzed the microcontroller market, and created a business plan for a start up business. The website team developed the team website.

Accomplishments

We researched the robotic market thoroughly, including the major competition, the growth of the market, and the holes in the market that would accept new products. We focused on the education market, mainly in the university setting. Then, we successfully designed an affordable with the following features: Motorola HC11 microprocessor, GCC compiler, casing, and more memory. We continued to develop our new business opportunity while designing our microcontroller. We also shipped out the parts for our board to be fabricated for the prototype.

Critical Barriers and Obstacles

We started out with a product that we decided did not provide a good business opportunity for us. So, we had to start from scratch. We had to get ideas of what we were going to build our business around. Later on, we ran into more problems with the production of a prototype in that we were running out of time so we were unable to add some of the features that we wanted, and we were unable to complete the prototype in time for IPRO Day.

Conclusion

We developed a business plan for a small university supported business based around our microcontroller. We designed and developed a more affordable microcontroller with sufficient functionality and sophistication for use at the university level. Our business designs microcontrollers and then ships the design and part to an independent manufacturer to assemble the microcontroller. We then sell our product through university bookstores, as well as online via our website. We will use the ECE-100 class here at IIT as well as the IIT First Robotics club for testing and testimonials, providing feedback which will help us develop and continually improve our product.

Next Steps

We need to test our product, and start selling it in the IIT bookstore for the ECE 100 class. We will continue to update and improve our product with helpful feedback from ECE 100, while at the same time spreading to more schools. We also need to hire a local part-time staff to run the daily operations of our business.

Faculty

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Students

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