

Request for an Endurance Laser Module

Dear George,

This text is in response of the Endurance solid-state lasers offer for educators as per the February 2019 email newsletter.

I am a teacher at École de la Rose Sauvage, a public Francophone junior and senior high school located in Calgary, Alberta, Canada (<http://larosesauvage.francosud.ca/>). My course load is mostly centered around science and maker education.

Among the maker-themed courses that I am teaching is a robotics class with a particular focus on invention and prototyping. The products that our students are working are not made out of pre-made robotic kits. They are built from a microcontroller (mostly Arduino-based) and sensor, structural and moving parts come from a mix of bare components, recycled-materials and/or student-made parts. This process can prove to be quite a challenge to our students as it involves the conjuncture of many skills that are often new to them. I have been requesting the acquisition of a laser cutter/engraver to support this course as well as other courses expecting that our students should be able to design and make structural parts for their project at a fraction of the time it currently takes most of them.

Besides my regular teaching, I am working at implementing a rapid-design prototyping course for our senior students. The use of a laser cutter/engraver device would support this course as it would let students go through the design cycle at a much faster pace, allowing them to shift their focus on the design and implementation aspect of their creations rather than spending so much effort on crafting plastic, wood or cardboard with different cutting tools. In other words, the expected outcome from this course should be about iterative design rather than being on crafting skills.

Unfortunately, due to budget constraints, the acquisition of readily-built/ready to use laser engraving/cutting machine is not currently considered as a priority at my school. I am now looking at alternative ways to get such a machine into my school and, with the help of students, I am seriously considering building a CNC bed and controller from open-source models. A donation of a proper laser diode tool would help in great stride to make this project a reality at the school.

Hoping that this request aligns with Endurance Lasers mission and values,

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