



A New ROV Class!

Imagine a classroom full of students watching a video taken from a submarine:

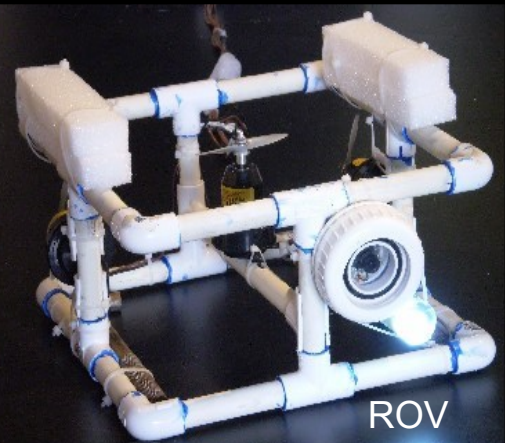
Students watch fish and other marine animals in their natural environment. They can see a wide variety of plant life living at different depths and conditions. They see manmade structures that were put in place a long time ago for industrial purposes, but are now serving as fish habitat. They also see other manmade things, such as discarded objects considered as pollution.

So far in our scene, there is nothing that distinguishes this classroom from one decades ago where similar films were often shown in science class.

But in this case there is a big difference: the marine environment isn't a distant ocean; it's the local lake within a few blocks of the classroom. Furthermore, a professional film crew did not produce the video; students, perhaps schoolmates or maybe the very students watching the film, made it. Finally, the submarine used to take the video was also made by students. It's an underwater ROV (remotely operated vehicle) with a video camera and other features that make it an excellent vehicle for exploring the underwater environment close to the school.

Community Partners

- Onigaming Yacht Club
- MTU - Civil and Environmental Engineering Department
- Houghton County Historical Museum
- MTU - High School Enterprise



Students will design, construct, and test ROVs to research a variety of topics below the lakes' surface: Inspect mooring anchors and navigational channels for obstructions, investigate artifacts from by-gone eras on the lake bottom, observe plant and animal life in local lakes - they will do it without disturbing sediment lying on the lake bottom. Data will be recorded via cameras and sensors.

- - - Teacher quote

Dollar Bay High School

2010-11 School Year:

Interdisciplinary STEM course:

Mr. Zimmer - Science & Math
Ms. Helminen - Local History
Ms. Moilanen - Life Sciences

Two-trimester, 77 min ROV class



STEM Course:

- Science
- Technology
- Engineering
- Mathematics



Dollar Bay's science inquiry ROV class will be linked to other ROV classrooms, creating an information-sharing network of ROV teams throughout Lake Superior, the Great Lakes basin and beyond!



Benefits to the Lake Superior Watershed:

- Collect data from lake bottom without disturbing lake sediment
- Data collection for immediate use by the Michigan Tech University
- Data collection within a network of Michigan schools to share, compare and request information in the Great Lakes area.
- Student involvement increases care for that area.
- Increased student knowledge of Lake Superior and local inland lakes, helps to develop a vested interest in the lakes, fulfilling the role of stewards of the lakes as they become adults in local communities.



Proposed Timeline

