

# BlueROV2

Manufactured in the US, the BlueROV2 is an affordable, open-source, customizable Remotely Operated Subsea Vehicle (ROV), perfect for introducing students to emerging technologies in exciting industries.



## Why the BlueROV2?

- A very popular vehicle used by research groups and commercial divers, in Australia and worldwide
- Costs less than \$6,000 per vehicle
- Sold as a kit for students to build and configure, then operate and maintain
- Remotely controlled from surface by Xbox controller with live HD video streamed to laptop via TCP/IP
- Uses Open-source software and hardware, like Raspberry Pi and Pixhawk
  - easy to configure, upgrade, expand, trouble-shoot and customize
  - code and CAD drawings are freely available for inspection and modification
  - no ongoing licensing fees
  - technology skills are applicable to a wide range of other IT-focused industries



## Why use an underwater ROV in the classroom?

- Robotics is exciting to students, combining new technology with exploration of new underwater environments (local marine ecosystems, shipwrecks, etc.)
- ROV/UUV industry with very strong expected growth, which will result in short-term skills shortage
- ROVs are now being used in industries beyond mining and construction, resulting in wider range of new job opportunities

## How will an ROV project benefit your students?

- Build student exposure to and excitement in emerging technologies
- Links closely to STEM and STEAM outcomes
- Ability to use ROV video across wide range of other curriculums, for example:
  - Study of video content in Marine Science or Engineering subjects
  - Video and sound editing for Media Studies
  - Topic for report or poetry writing in English
  - Inspiration for compositions in Music



## Where Can You See More?

- Watch the BlueROV2 in action at <https://vimeo.com/230132624>
- Visit <https://vimeo.com/231694023> to see deep-water habitat in Batemans Bay Marine Park, NSW

## Who is Undersea ROV?

- We are a small Australian company of engineers and scientists who are excited about sharing our experiences with the next generation of scientists
- Our staff are experienced in building, configuring, maintaining and using the BlueROV2
- Our Directors all have current NSW WWCC

