

Autonomous underwater vehicles

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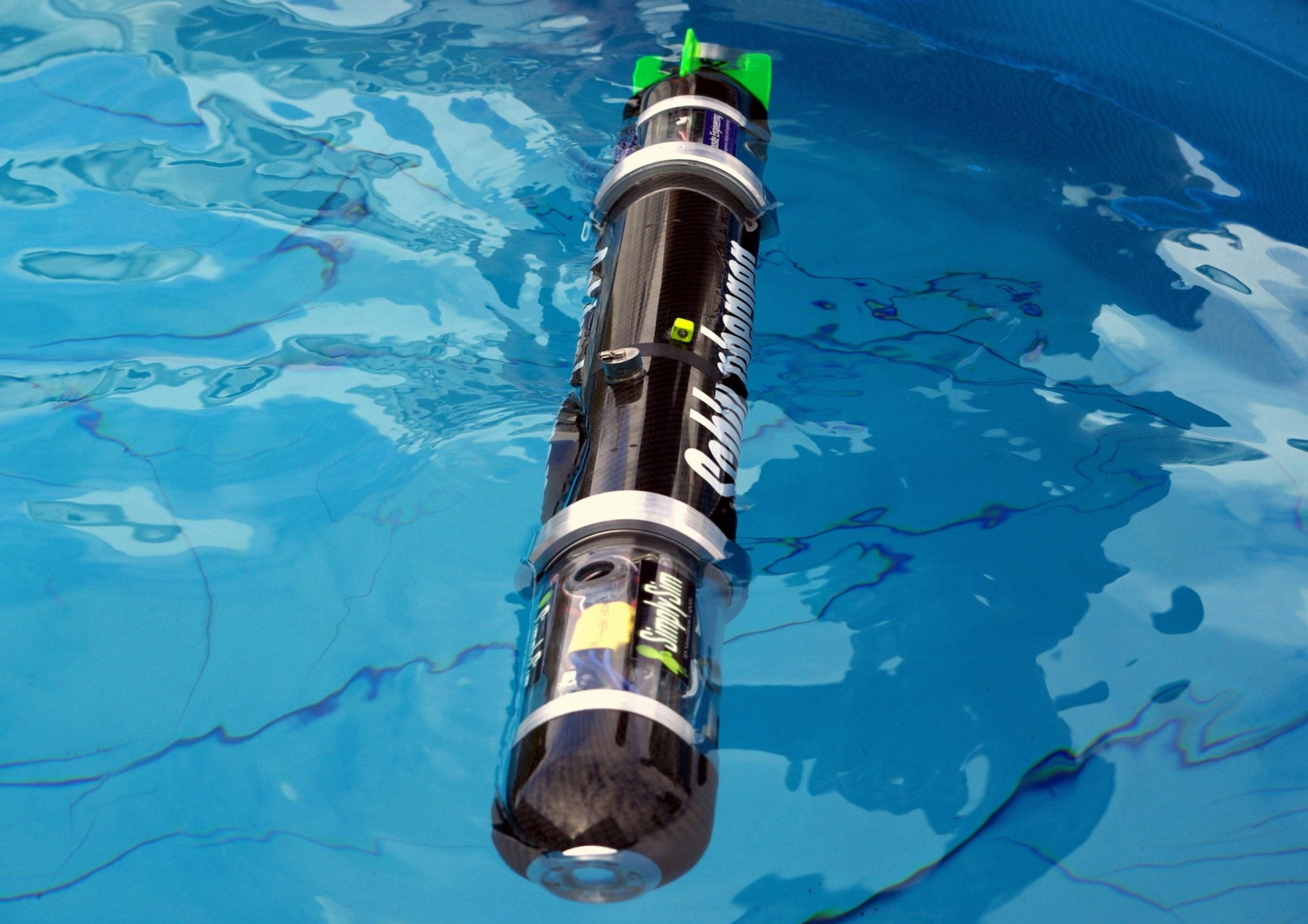
Main points

- Premisis
- Vehicle design
- Applications

Premisis

- AUVs are robots
- No operator control
- No umbilical or remote control

Vehicle design



"Blackghost" by Paul Esparon, Sunil Shah, Dr Timothy Nickels and the 2008 CAUV team.



KROHN D
PLUTO PL S-109

Sensors

- Compasses
- Depth sensors
- Sidescan and other sonars
- Magnetometers
- Thermistors
- Conductivity probes

Propulsion

- Gliding using buoyancy change
- Propellers powered by electric motors

Navigation

- Mostly dead reckoning
- Position is estimated via GPS

Applications

- Commercial
- Research
- Military
- Air crash investigation

Commercial

- Mapping the seafloor
- Scouting for pipelaying
- Post-lay pipe surveys

Research

- Study of water bodies
- Sensor package delivery
- Taking measurements

Military

- Payload delivery
- Underwater warfare
- Mine countermeasures
- Communication\Navigation network nodes

Air crash investigation

- Search for debris

**Thank you for your
attention**