

Product Comparison

A typical plastic backboard...

is difficult to submerge initially due to its high buoyancy and rises up quickly, making it difficult to align under the victim.

Our backboard...

is easy to submerge under a victim because of its low initial buoyancy and rises up in a controlled manner, making it easy to position correctly the first time.



Current Products

Low buoyancy



High buoyancy



Ocean rescue



Special Thanks

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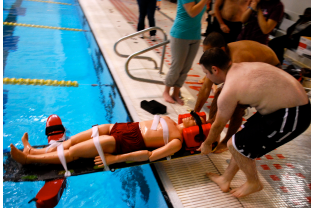


aquAIRius

a variable buoyancy
backboard for an
easier pool rescue

Product Overview

A backboard is a device used by rescue personnel for the immobilization and transportation of patients with suspected spinal injuries.



aquAIRius was developed to make this rescue process easier.

Standard backboards are very buoyant and difficult to submerge. The lifeguard could jostle the victim while struggling to position the board, exacerbating the injury.

Our product solves this problem. It is easy to submerge and position beneath the victim. Once the board is positioned, the lifeguard pushes a button to inflate a set of bladders beneath the board using compressed air. This increases the board's buoyancy and supports the victim, resulting in an overall easier rescue.

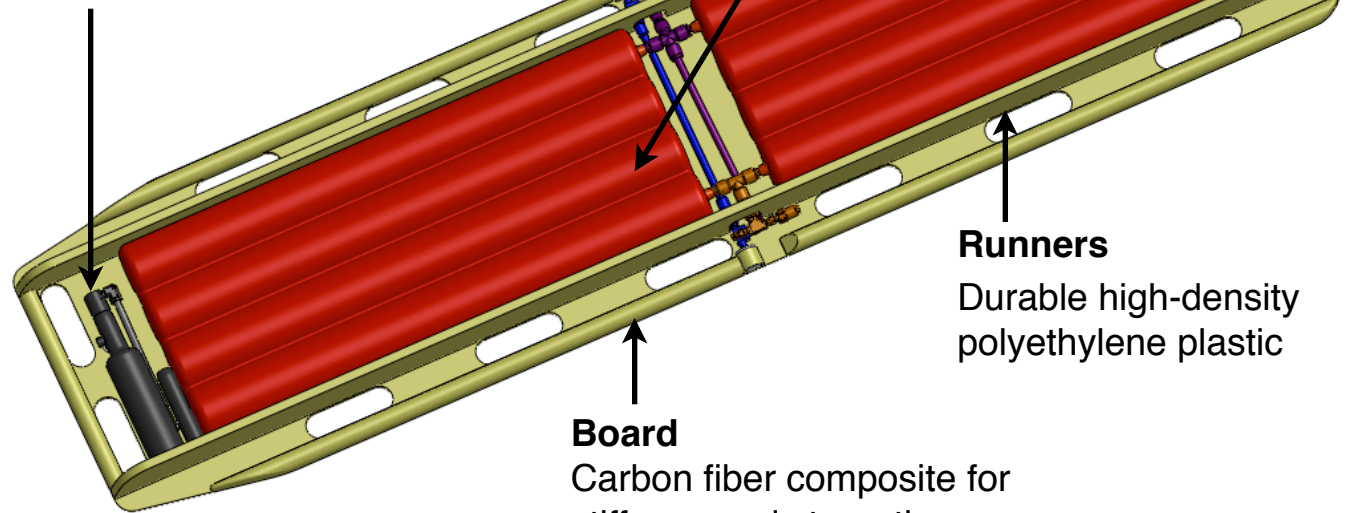
Design Features

Considerations

- ➔ X-ray transparent over spine area
- ➔ CT scannable
- ➔ Compatible with pool chemicals

Compressed air tank

Easily refillable and pressurized to 2000 psi



Bladders

Puncture-resistant urethane-coated nylon

Controls

Inflate from either side during a rescue

Runners

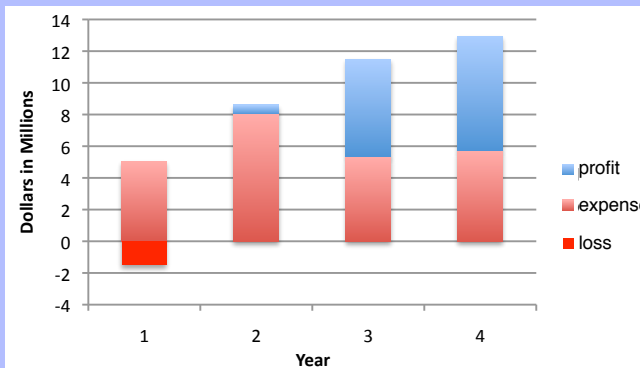
Durable high-density polyethylene plastic

Board

Carbon fiber composite for stiffness and strength

Business Strategy

There are 300,000 commercial/public pools in the United States, and each is required by its insurance policy to have at least 1 backboard. We estimate that the average pool has 3 backboards, which are replaced approximately every 10 years.



➔ Potential sales: 90,000 backboards/ year

➔ Price of popular boards: \$300-\$500

➔ Our cost of Manufacturing: \$250/board
 • Within two years: \$150/board

➔ Our wholesale price: \$319