

# Project Design Phase – II

## Customer Journey Map

Date	17 October 2022
Team ID	PNT2022TMID26933
Project Name	VirtualEye – Life Guard for Swimming Pools to Detect Active Drowning
Maximum Marks	2 Marks



## SHALLOW WATER BLACKOUT: HOW IT HAPPENS

Prolonged underwater breath holding can be deadly; here's why.

### HYPERVENTILATION

Overbreathing either consciously, or as a result of overexertion, artificially lowers carbon dioxide levels.

### OXYGEN DROPS

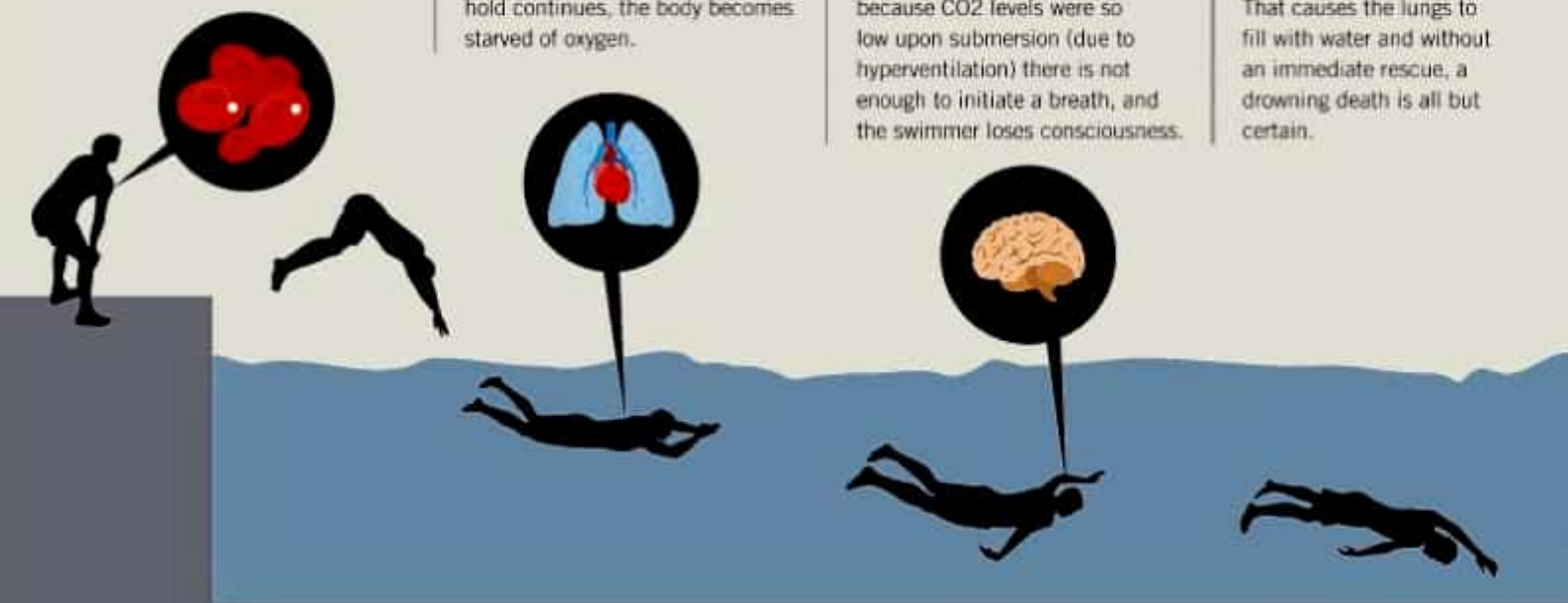
As the breath hold begins, oxygen is metabolized and carbon dioxide levels increase. As the breath hold continues, the body becomes starved of oxygen.

### UNCONSCIOUSNESS

Under normal circumstances, increased carbon dioxide would trigger a breath, but because CO<sub>2</sub> levels were so low upon submersion (due to hyperventilation) there is not enough to initiate a breath, and the swimmer loses consciousness.

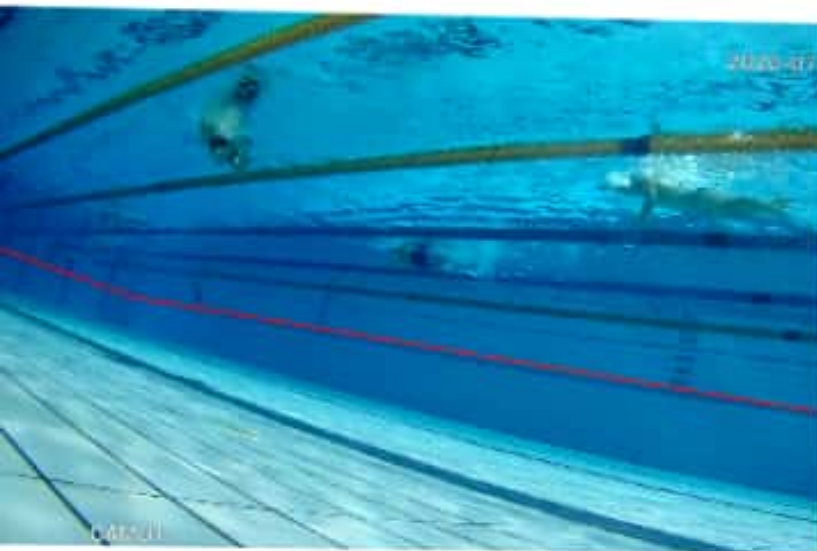
### DROWNING

Once the swimmer loses consciousness, the body reacts and forces a breath. That causes the lungs to fill with water and without an immediate rescue, a drowning death is all but certain.

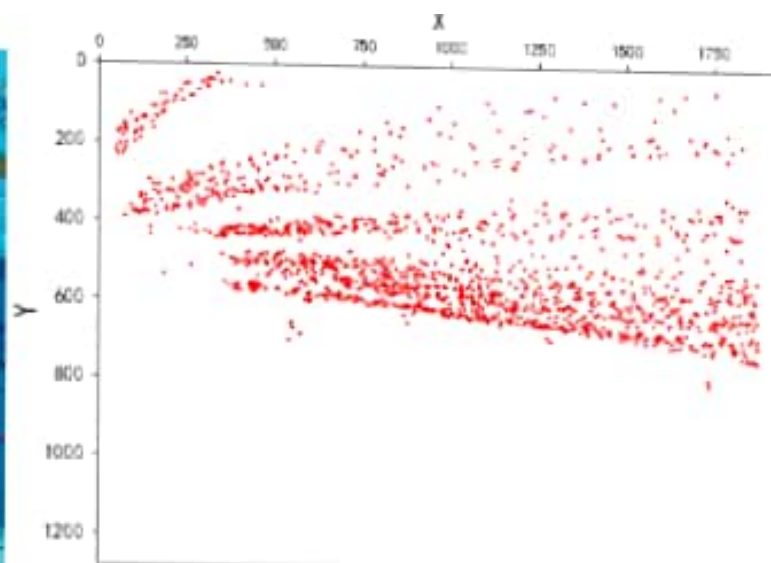


Source: Aquatics International

VALLEY NEWS — SHAWN BRALE



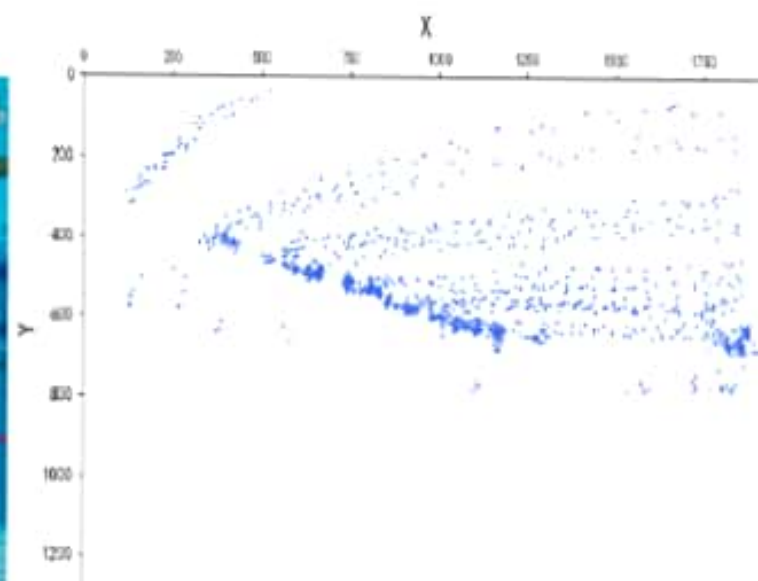
**(a)** Long pool angle



**(b)** Long pool angle distribution



**(c)** Short pool angle



**(d)** Short pool angle distribution



frame #100



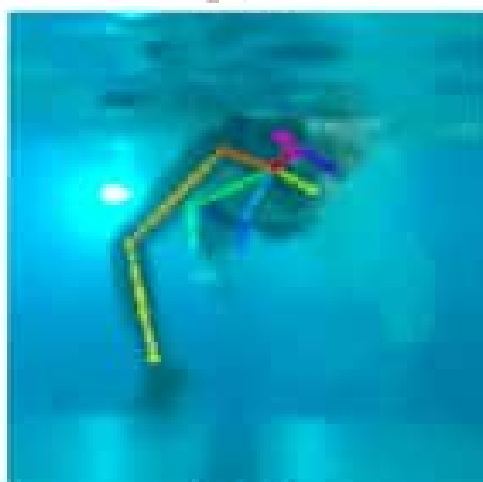
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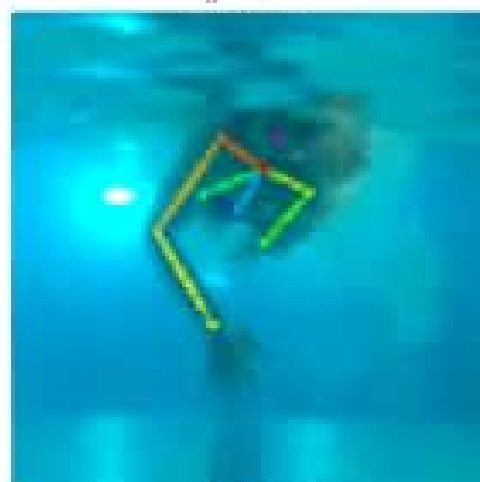
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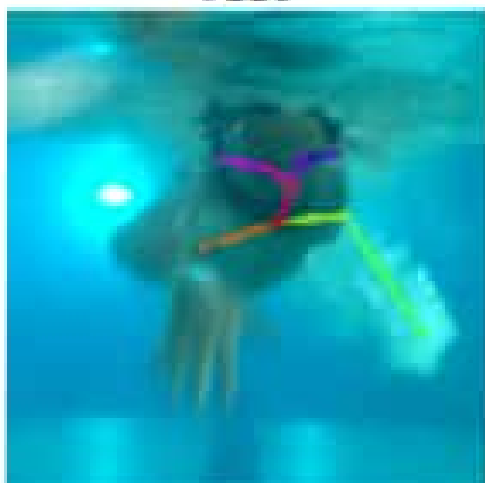
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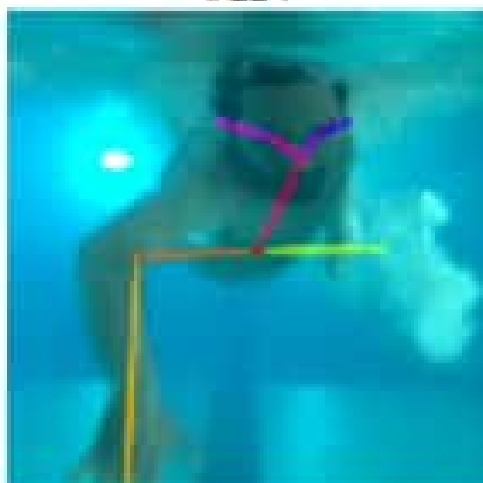
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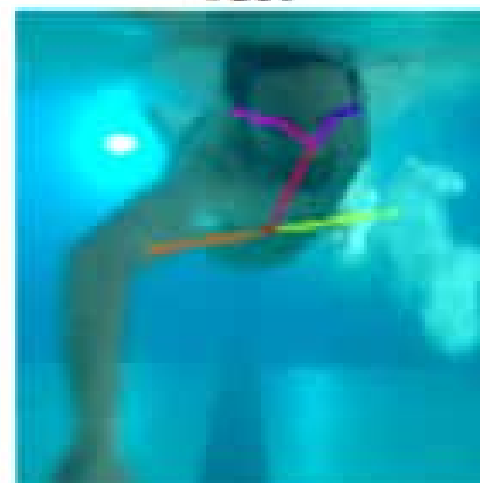
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