

Future Board

Bolton, Lachlan (School: Redeemer Baptist School)

Surfing, one of the most thrill-seeking sports around the globe, is daily faced with a major issue. The surfing community unanimously agree that the transportation of bulky surfboards is problematic, whether by car, public transport or by plane. To address this problem, I have designed, fabricated and tested the world's first modular and extendable surfboard, called the Future Board. The modular 3 and 4-foot sections can be readily assembled to form a 6-foot or 7-foot board, with the potential of a longer 8-foot board possible. The Future Board disassembles to the size of a body board, comfortably fitting into any car. To optimise the strength and stability of my final design, the board incorporates 2 carbon-fiber dowels to span the tension area with 2 threaded rods, either side of the stringer that are manually tightened to provide tension across the whole board. The Future Board can be assembled and disassembled in less than 3 minutes. The Future Board has been field-tested in a variety of high and low swell conditions and local surfers and an international surfer who have tested the board all remarked how it rides like a conventional surfboard. Stress-testing with loads, in excess of 700 pounds, were performed on 10 surfboards, 5 with the special joining system and 5 without at a NATA accredited testing laboratory. Both types of boards broke at a loading force of 440 pound-force, proving that the board's strength was not compromised by the joining system, an essential element for it's marketability.