VARIABLE CAMBER SEGMENTED CONTROL SURFACES

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The invention is novel in its use of segmented levers assembled to articulate in both positive and negative symmetric cambers by means of the single degree of freedom rotary actuation shaft. There are no secondary actuators required as seen in state of the art cambered flaps for aircraft.

FIG. 2A

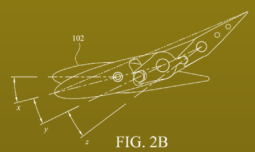


FIG. 2B

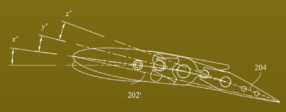
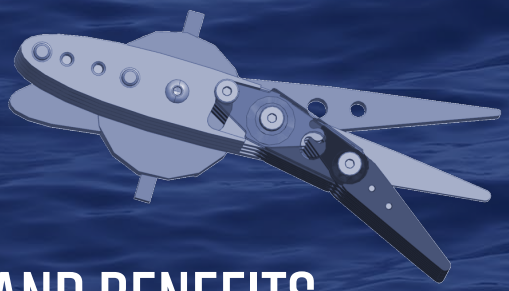


FIG. 2C



FEATURES AND BENEFITS

- Uses segmented levers to articulate in both positive and negative symmetric cambers
- Single degree of freedom rotary actuation shaft
- No secondary actuators required as in state of the art cambered flaps for aircraft.
- Excellent improvements in lift performance for a similarly sized symmetric foil – **up to 80%**
- Articulated leading edge angle of attack

POTENTIAL COMMERCIAL USES

- Boats
- UUVs
- Drones

**May have limited application in high speed highly loaded control surfaces*

Concept and initial prototype DESIGN

PATENT NUMBER(S): US 11453475 B1

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Partnering interest? Contact: Technology Partnership Office
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