

Shape sensing of morphing-wing sections using fibre optic sensors

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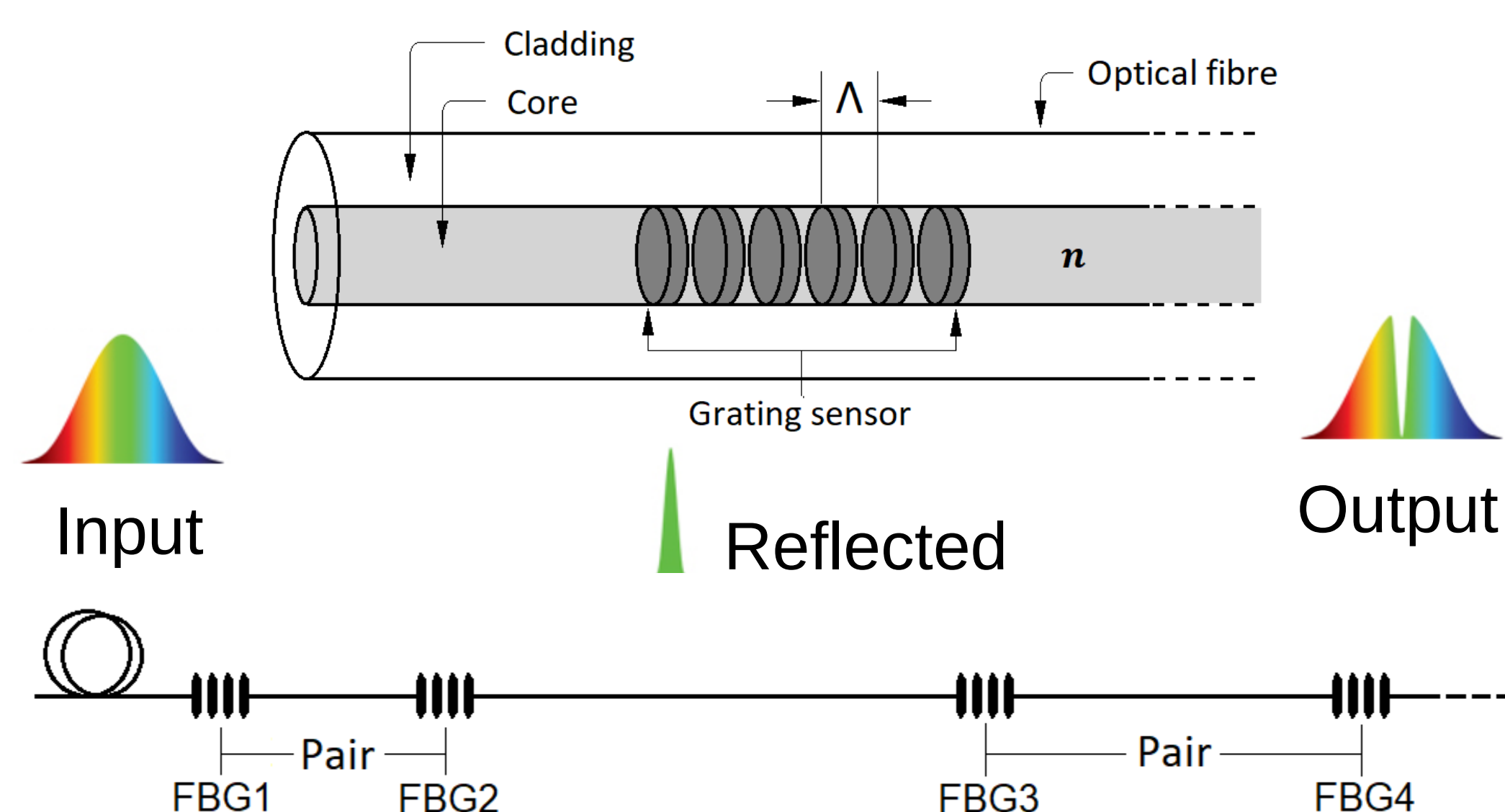
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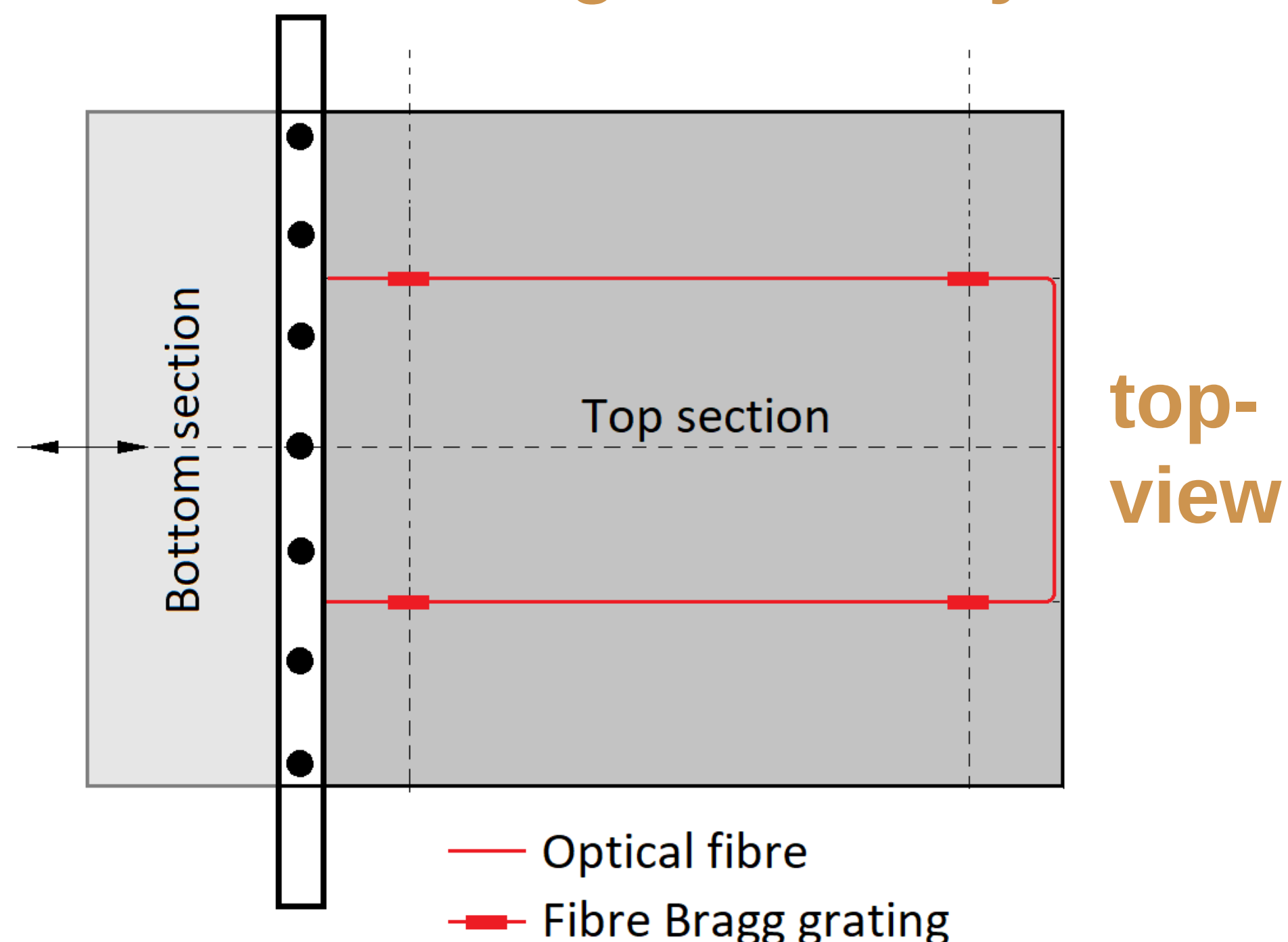
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Fibre Bragg grating (FBG) sensing



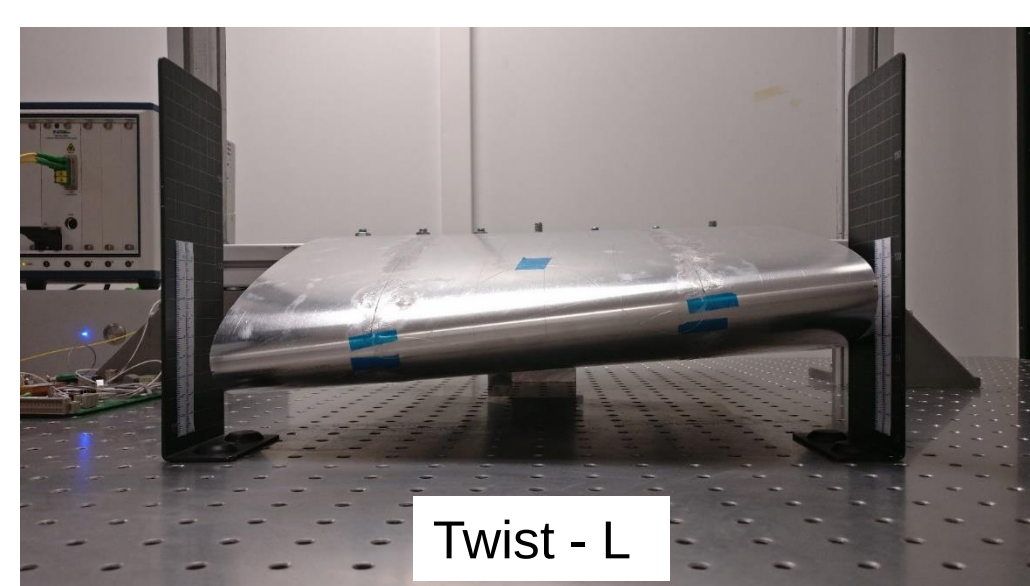
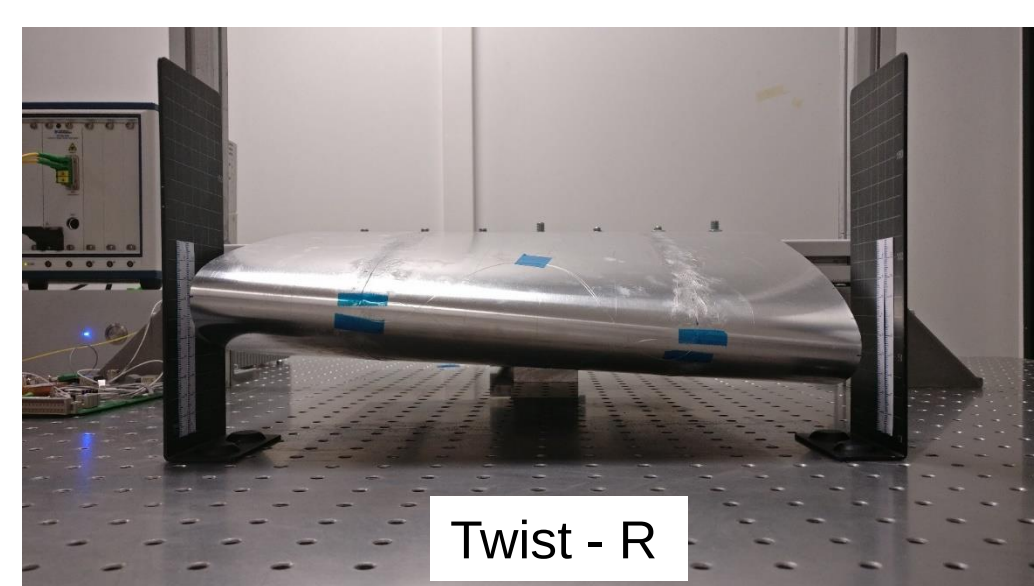
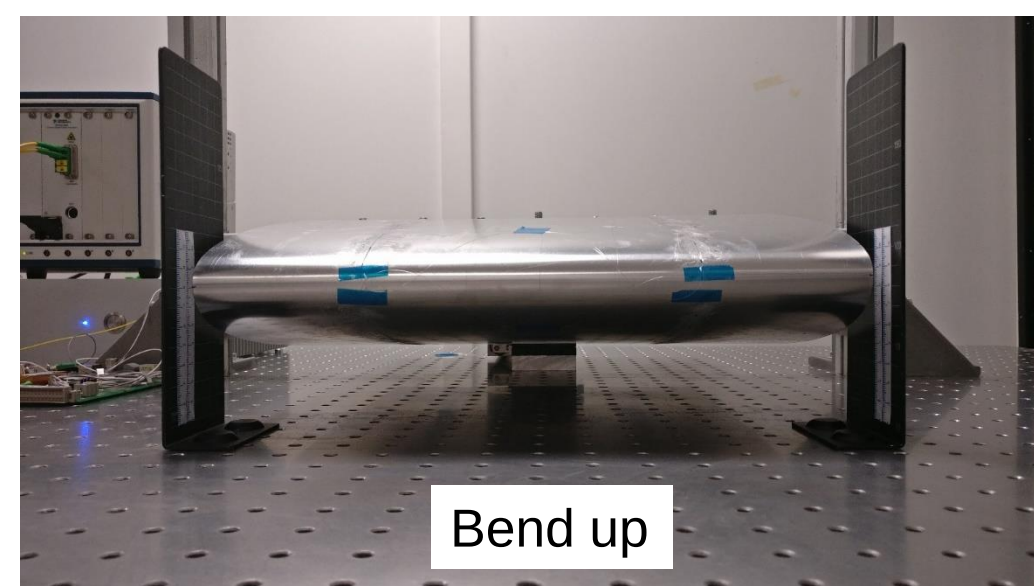
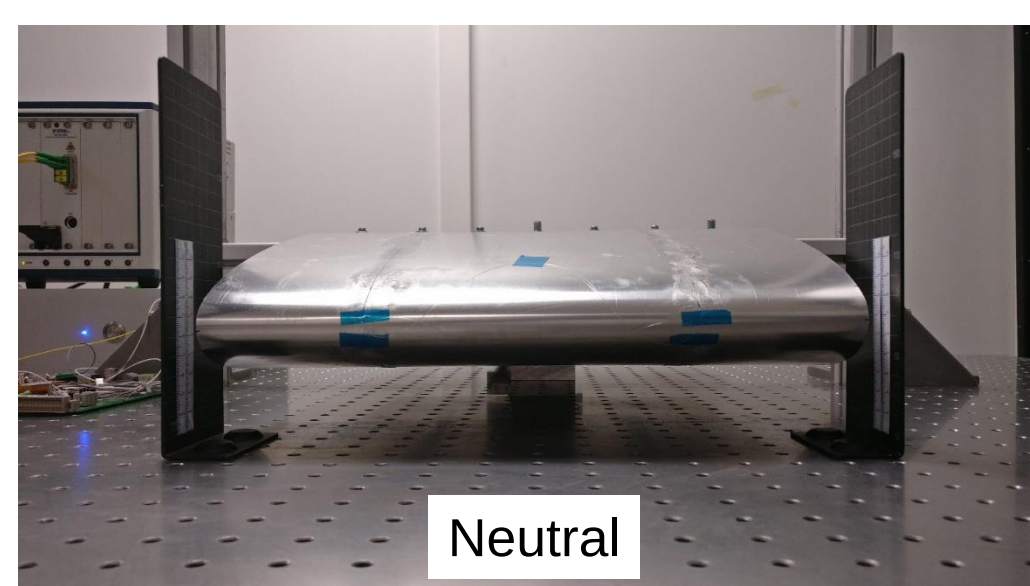
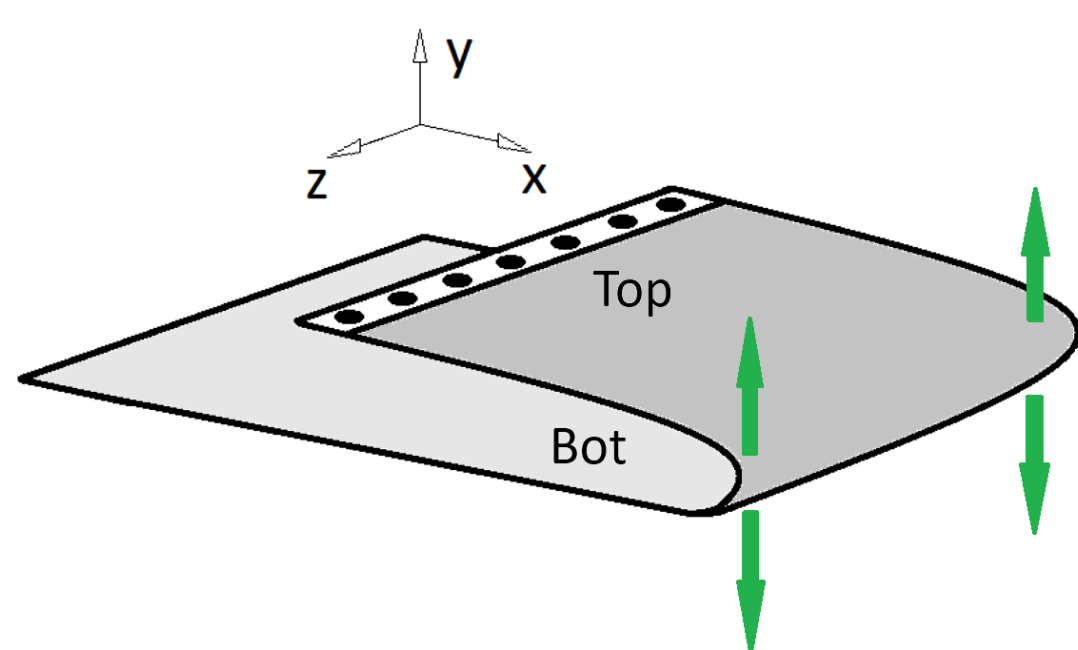
Measuring local strain at each grating and the displacement between each grating pair

Wing sensor layout

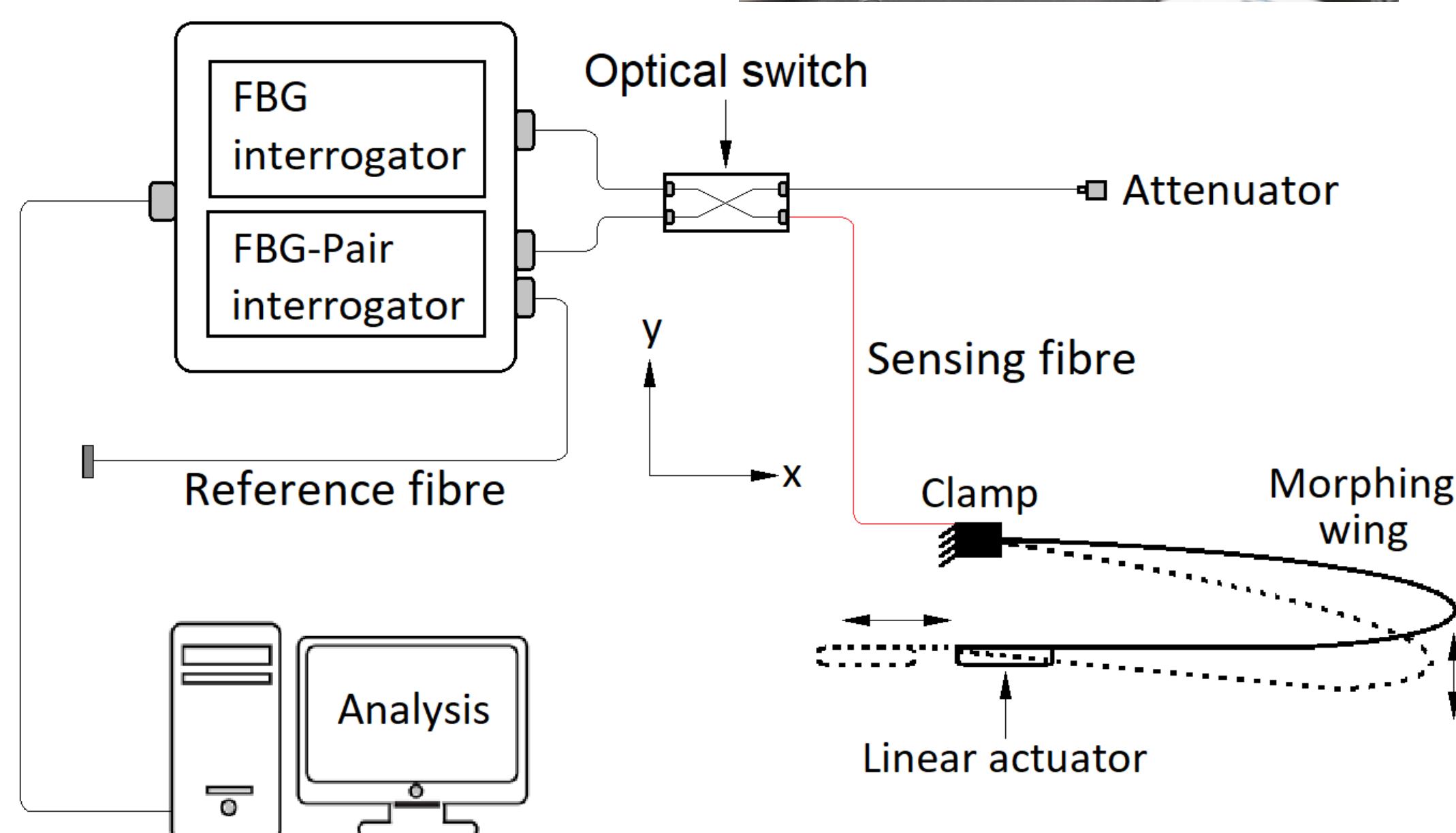
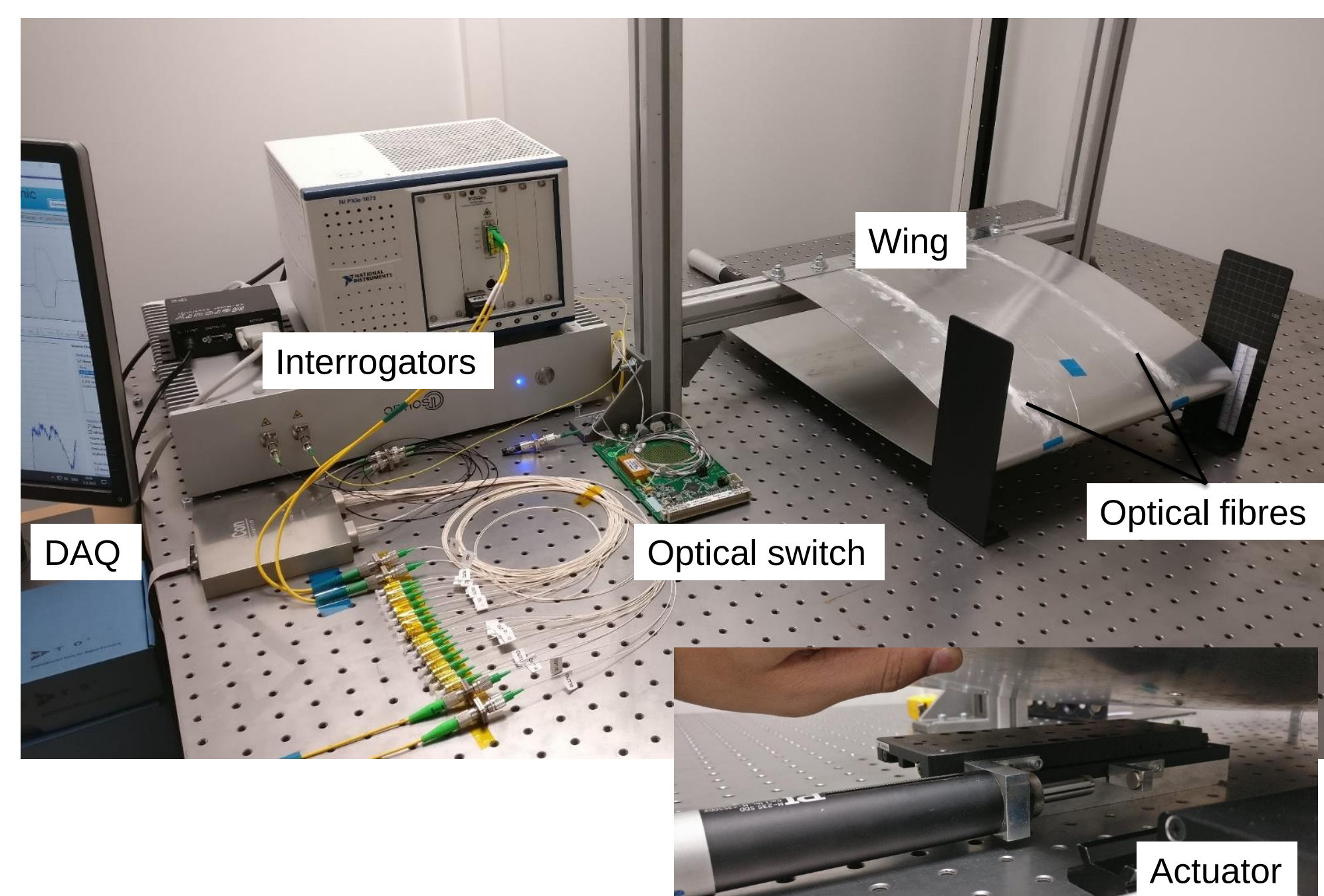


Test setup

Morphing sequences



The wing is monitored while it adapts its shape to achieve ideal aerodynamic and structural performance during different flight regimes



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