

# IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING

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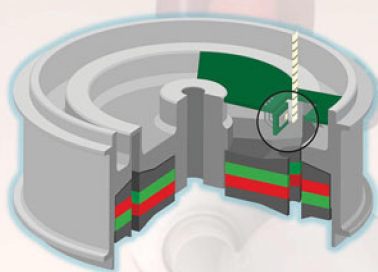
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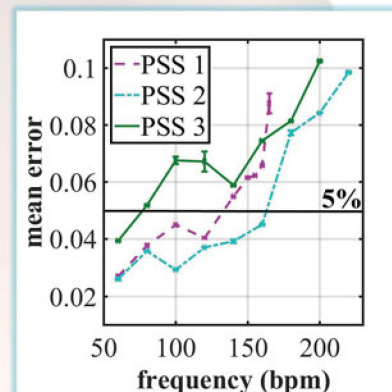
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**A: Implanted Total Artificial Heart**



**B: Scheme of the Position Sensing System**



**C: Error comparison of the Position Sensing Systems**

A: The Total Artificial Heart requires a Position Sensing System for the motor control. B: Three Position Sensing Systems were tested, firstly in a test rig and secondly in a mock circulation loop. C: The second Position Sensing System showed the lowest deviation from a reference position. It is suitable for the use in a Total Artificial Heart and in similar miniaturized applications. See "Novel Optical Position Sensing for Miniaturized Applications and Validation in a Total Artificial Heart," by Pelletier *et al.*, p. 478.

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