

Supporting Information

Morphodynamic tissues via integrated programmable shape memory actuators

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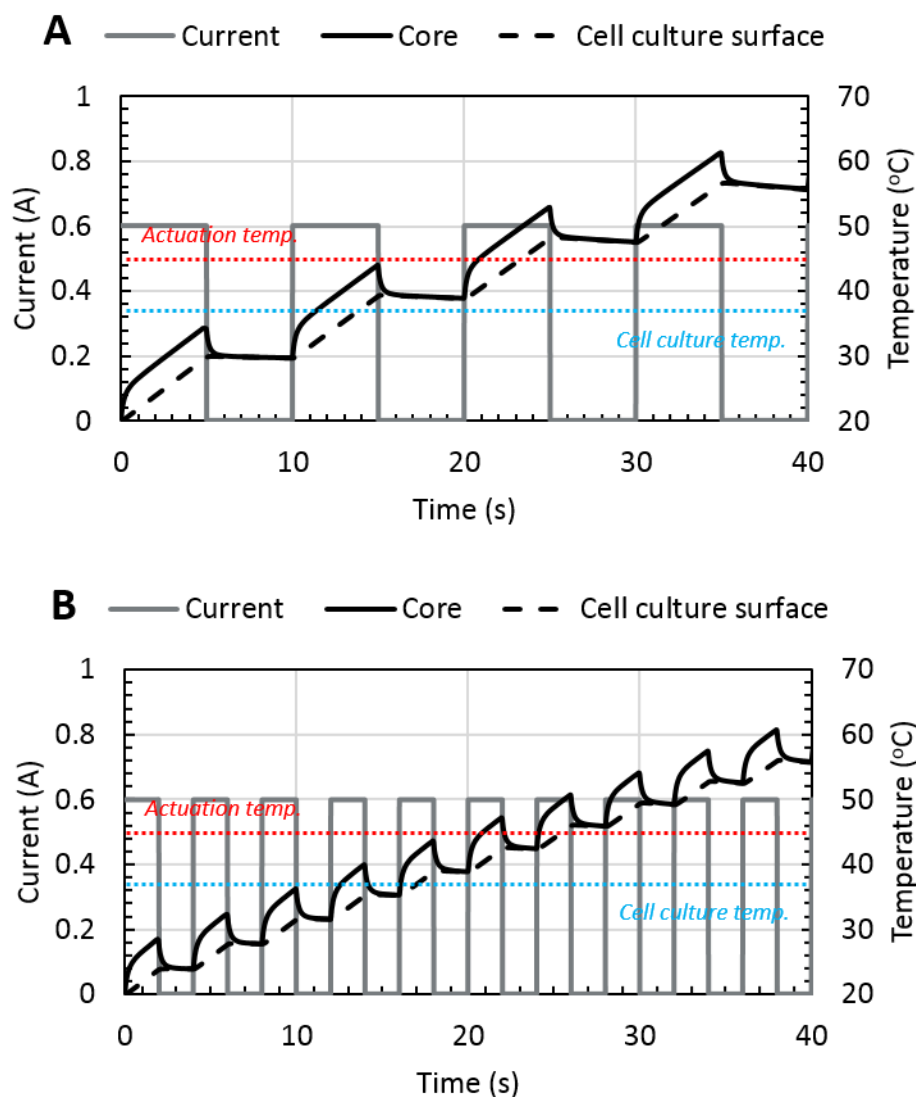


Figure S1. Simulated temperature profiles during electrical pulsing. Core and PDMS coating surface temperature over time for a 200 μm thick coating during pulsed resistive heating at (A) 0.1 Hz and (B) 0.25 Hz (red lines represent the actuation temperature and the blue lines represent cell culture temperature). Since the PDMS coating has a high heat capacity relative to the NiTi wire, the wire temperature drops faster than that of the coating during the current off-cycle. As a result, timed electrical pulsing cannot be used to establish a sharp temperature gradient and thus extend the safe actuation time window.