Supporting Information

A Miniaturized Optical Tomography Platform for Volumetric Imaging of Engineered Living Systems

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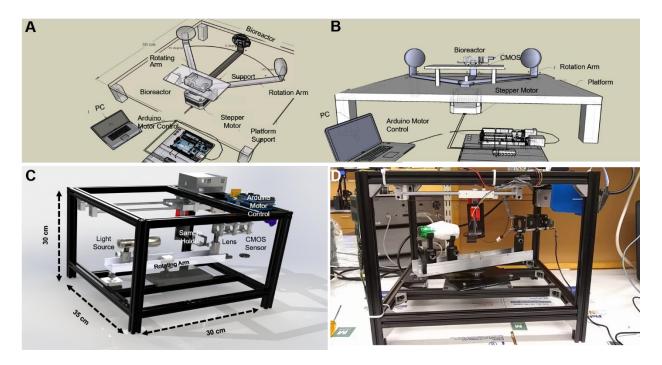


Fig. S1 Opto-mechanical design of the mini-Opto platform. A) Top and B) side views of the optical, mechanical, and electronic components of the setup. C, D) Graphic rendition and picture of a working mini-Opto platform, respectively.

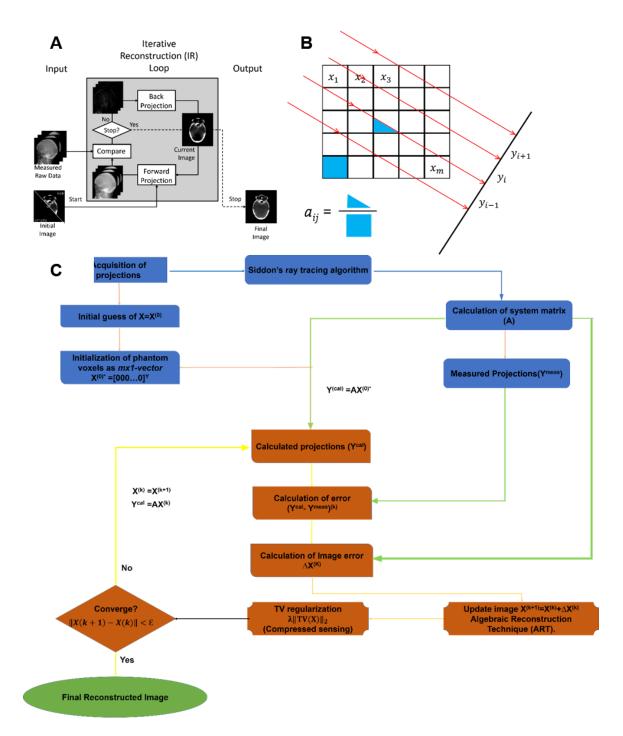


Fig. S2 A) Schematic of the working steps of an iterative reconstruction algorithm, adapted with permission from 47 . B) Illustration of calculating of the weight factor a_{ij} in the ART algorithm, adapted with permission from 33 . C) Flowchart of the ART+TV_{3D} algorithm.

Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	Layer 7	Layer 8	Layer 9	Layer 10
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Fig. S3 Layer-by-layer volumetric information of the tumoroid on Day 2.

Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	Layer 7	Layer 8	Layer 9	Layer 10
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Fig. S4 Layer-by-layer volumetric information of the tumoroid on Day 4.

Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	Layer 7	Layer 8	Layer 9	Layer 10
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Layer 31	Layer 32	Layer 33	Layer 34	Layer 35	Layer 36	Layer 37	Layer 38	Layer 39	Layer 40
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Layer 41	Layer 42	Layer 43	Layer 44	Layer 45	Layer 46	Layer 47	Layer 48	Layer 49	Layer 50
S	(C)	B					R		

Fig. S5 Layer-by-layer volumetric information of the tumoroid on Day 6.

Movie S1 Video of the reconstruction process showing how different objects inside a PDMS polymer gel evolve over different layers.

Movie S2 Video of the reconstruction process showing how different layers of a bioprinted vascularized channel inside a hydrogel evolve over different layers.