Supporting Information

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

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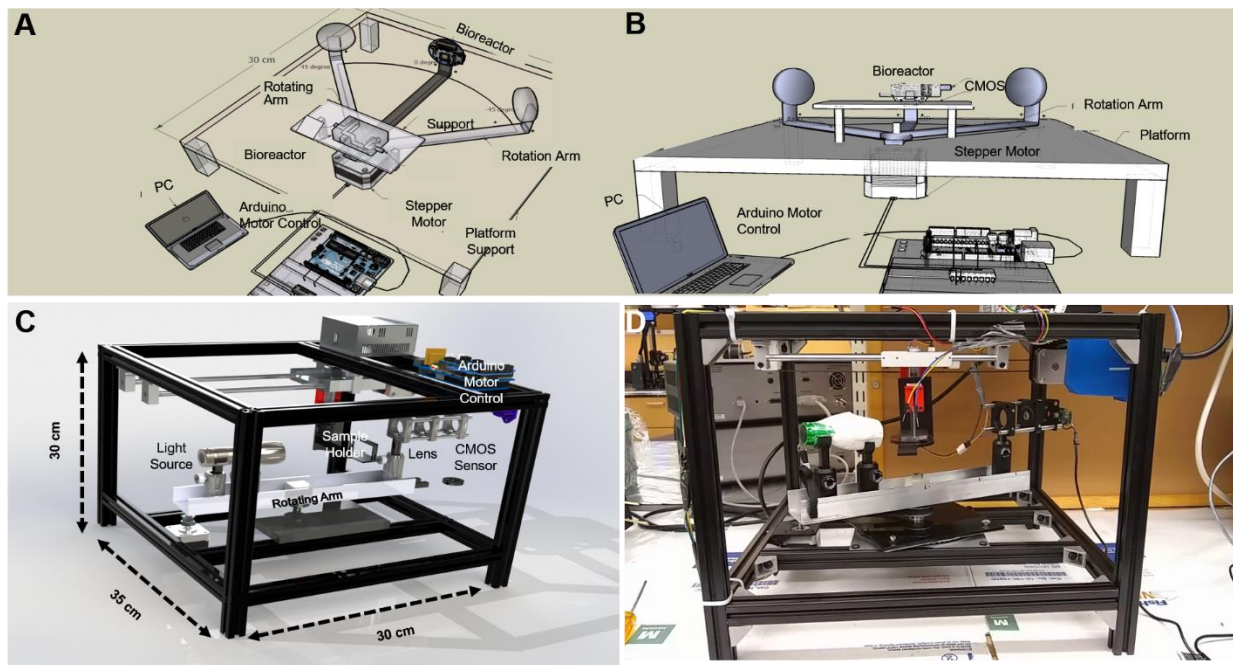
Fig. S1 Opto-mechanical design of the mini-Opto platform. A) Top and B) side views of the optical, mechanical, and electronic components of the setup. C, D) Graphic rendition and picture of a working mini-Opto platform, respectively.
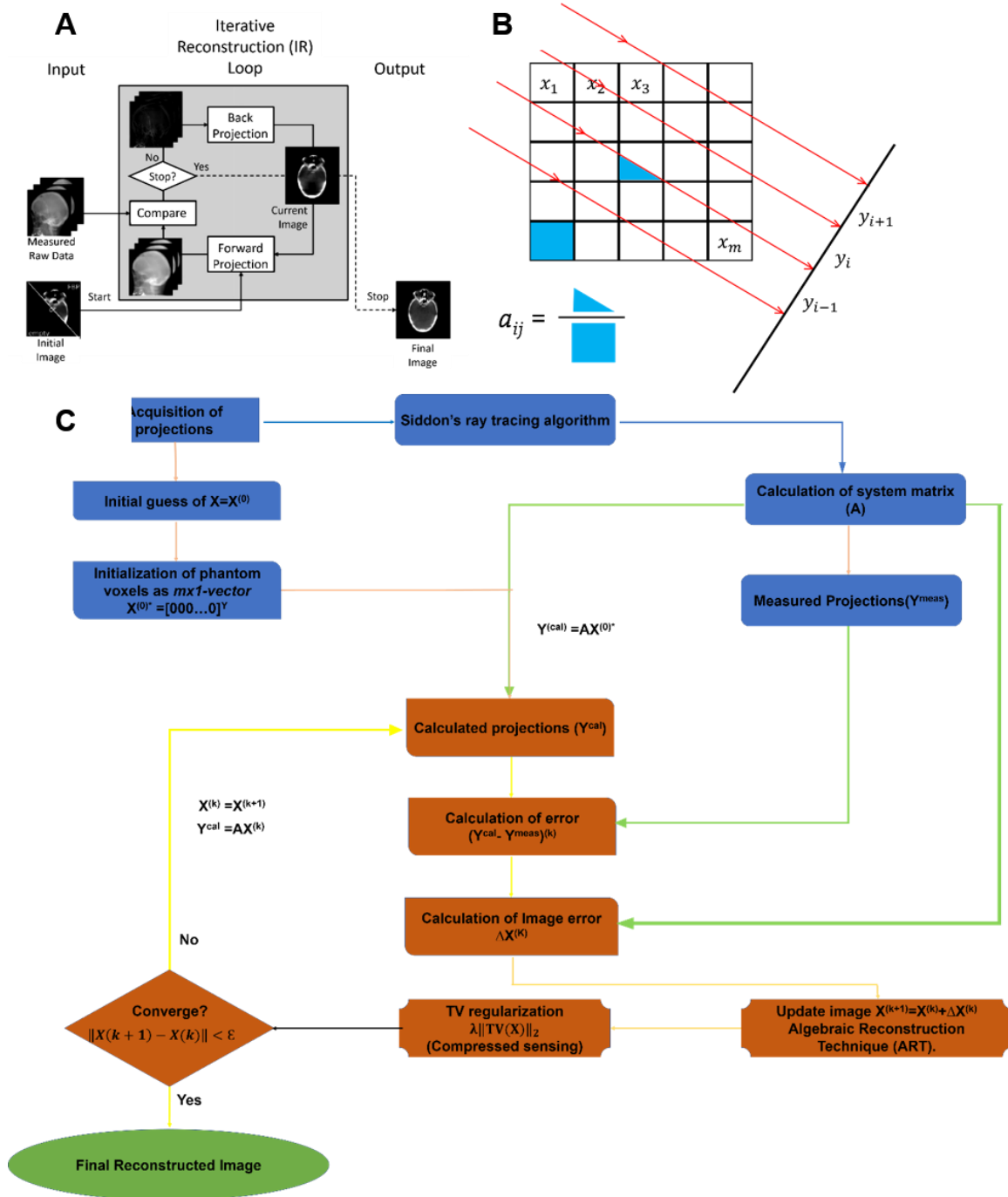
Fig. S2 A) Schematic of the working steps of an iterative reconstruction algorithm, adapted with permission from [47]. B) Illustration of calculating of the weight factor a_{ij} in the ART algorithm, adapted with permission from [33]. C) Flowchart of the ART+TV$_{3D}$ algorithm.
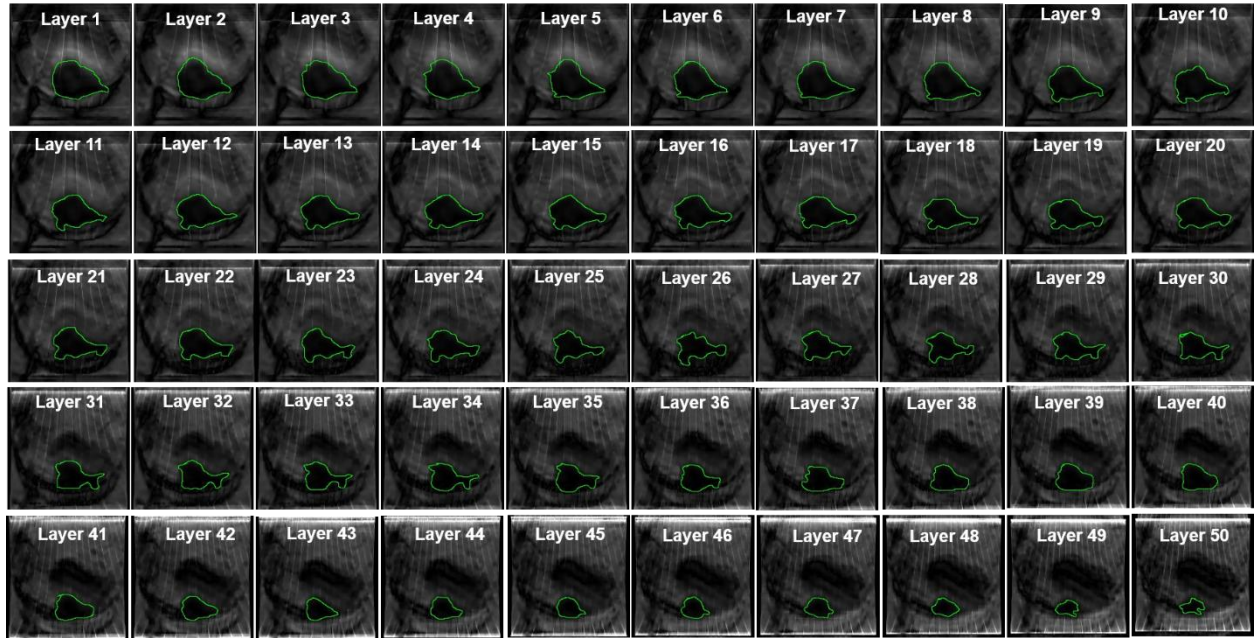
Fig. S3 Layer-by-layer volumetric information of the tumoroid on Day 2.
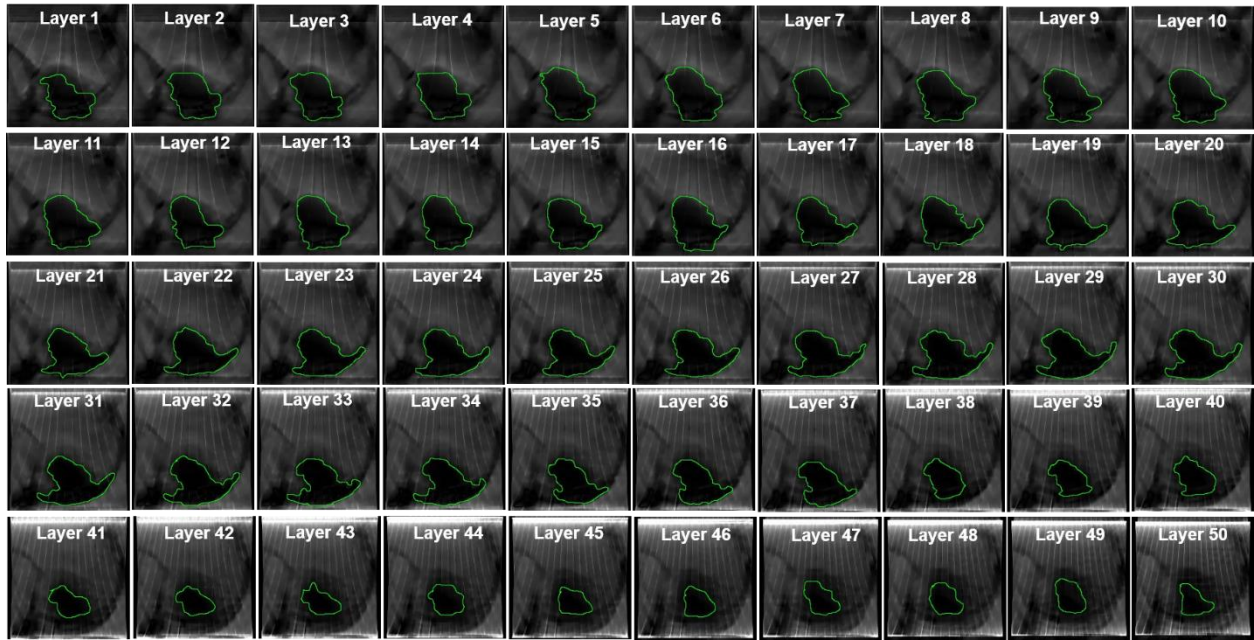
Fig. S4 Layer-by-layer volumetric information of the tumoroid on Day 4.
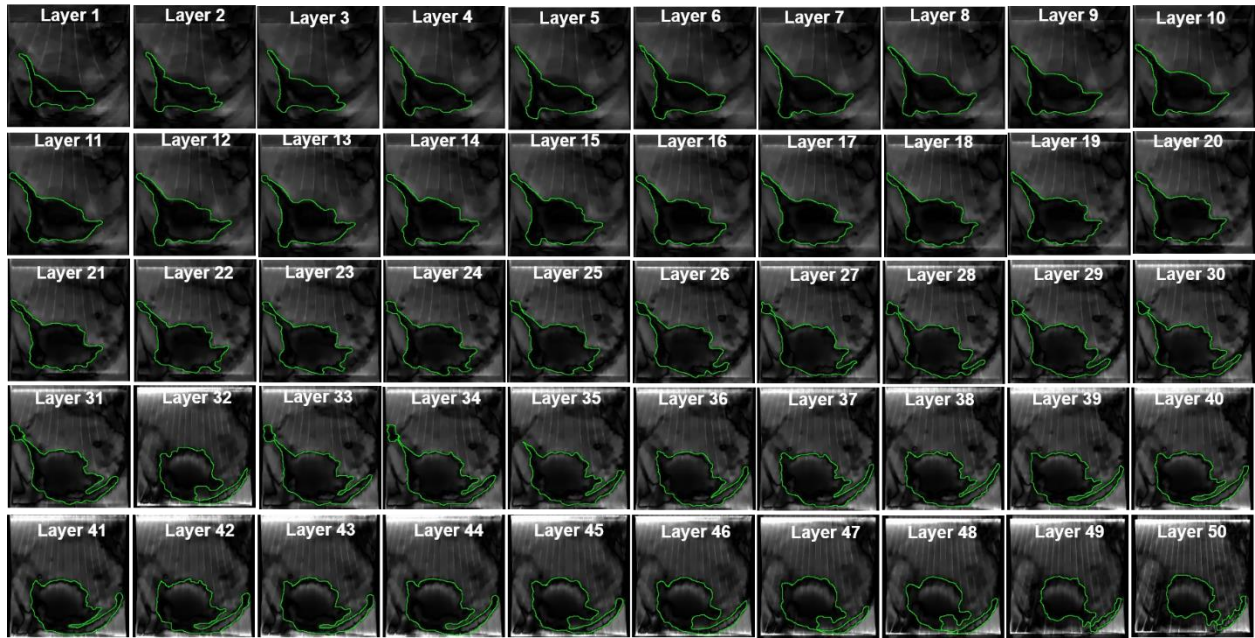
Fig. S5 Layer-by-layer volumetric information of the tumoroid on Day 6.

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.