

Description of Additional Supplementary Files

Supplementary Movie Legends:

Supplementary Movie 1: Transparent wall printing with HDSP mounted on a 3axis CNC positioner.

Supplementary Movie 2: Transparent wall printing in HDSP with printing platform mounted on robot armUR5e.

Supplementary Movie 3: Helix Printing with HDSP, demonstrating an example of an extrusion path with rotation.

Supplementary Movie 4: Unsupported U-structure with robotic-assisted HDSP, demonstrating continuous layerless extrusion and path following on a 6-axis UR5e robotic arm-mounted platform.

Supplementary Movie 5: High speed imaging of holographically created 2-spots simultaneous printing with HDSP.

Supplementary Movie 6: High speed imaging of holographically created 3-spots simultaneous printing with HDSP.

Supplementary Movie 7: Remote Distance Printing in HDSP using optically opaque printing material.

Supplementary Movie 8: Arc printing with robotic-assisted HDSP, using MECA500 robotic arm.

Supplementary Movie 9: Arc with robotic-assisted HDSP, using UR5e robotic arm. S

Supplementary Movie 10: Twist Cane structure as example of freeform printing with combined movement path using HDSP.

Supplementary Movie 11: Printing unsupported Zigzag structure with HDSP using MECA500 robotic arm