

Description of Additional Supplementary Files:

Supplementary Movie 1: Parallel fabrication of an octahedral truss structure using 100 laser foci.

Supplementary Movie 2: Parallel fabrication of a 2D array of numbers and alphabets using 36 laser foci.

Supplementary Movie 3: Actuation of the printed micro-gear to generate the rotation motion at 5 Hz.

Supplementary Movie 4: Actuation of the printed micro-gear to generate the directional flipping motion at 1 Hz