

RESEARCH ARTICLE

An experimental workflow for bioprinting optimization: Application to a custom-made biomaterial ink

Supplementary File

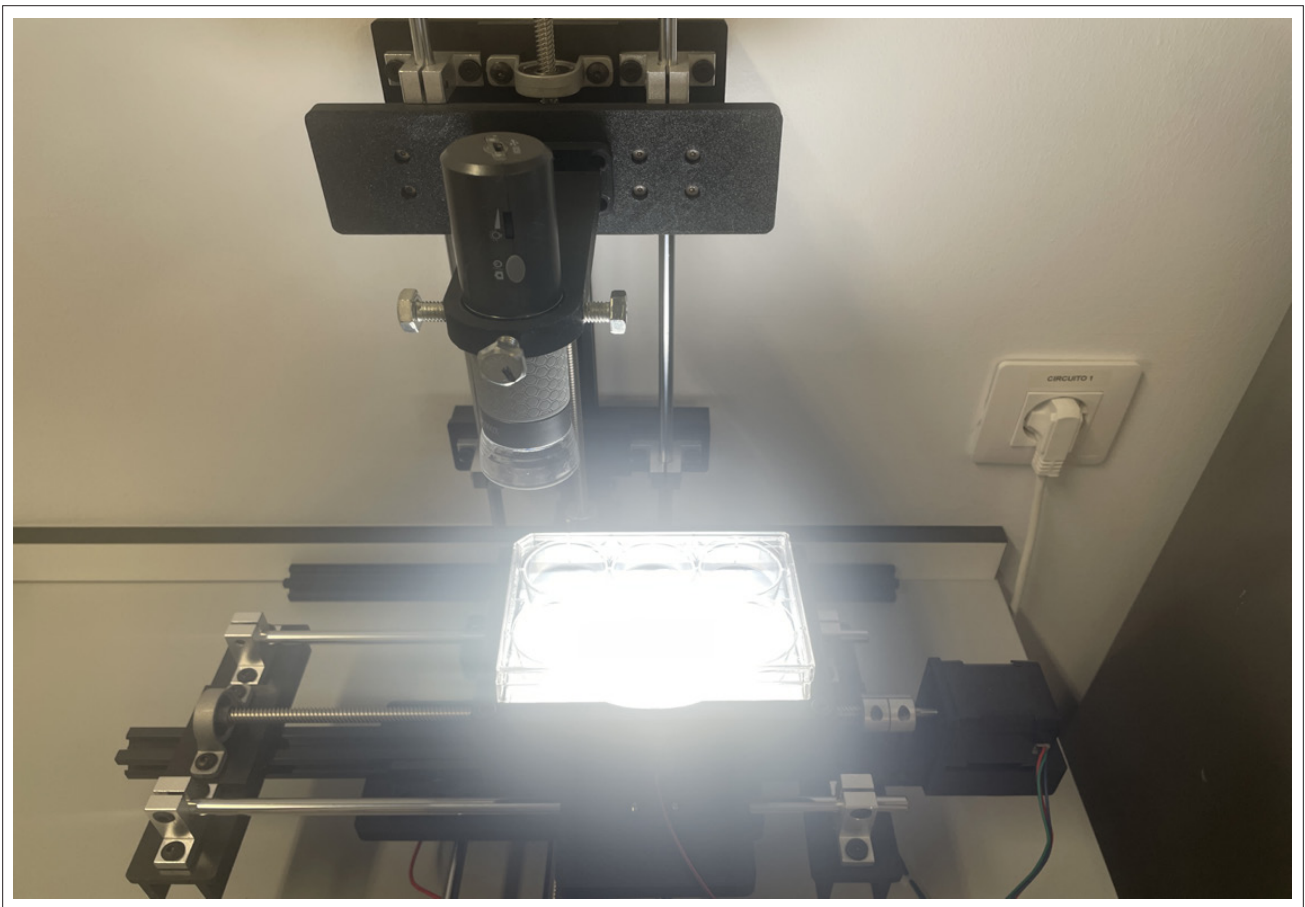


Figure S1. Custom 3D-printed lens support. A well plate mold support holds the well plate or Petri dish to the motorized platform manually controlled by the user to precisely adjust the camera to each printing well. The illumination system is also manually controlled by the user with an "ON/OFF" switch.

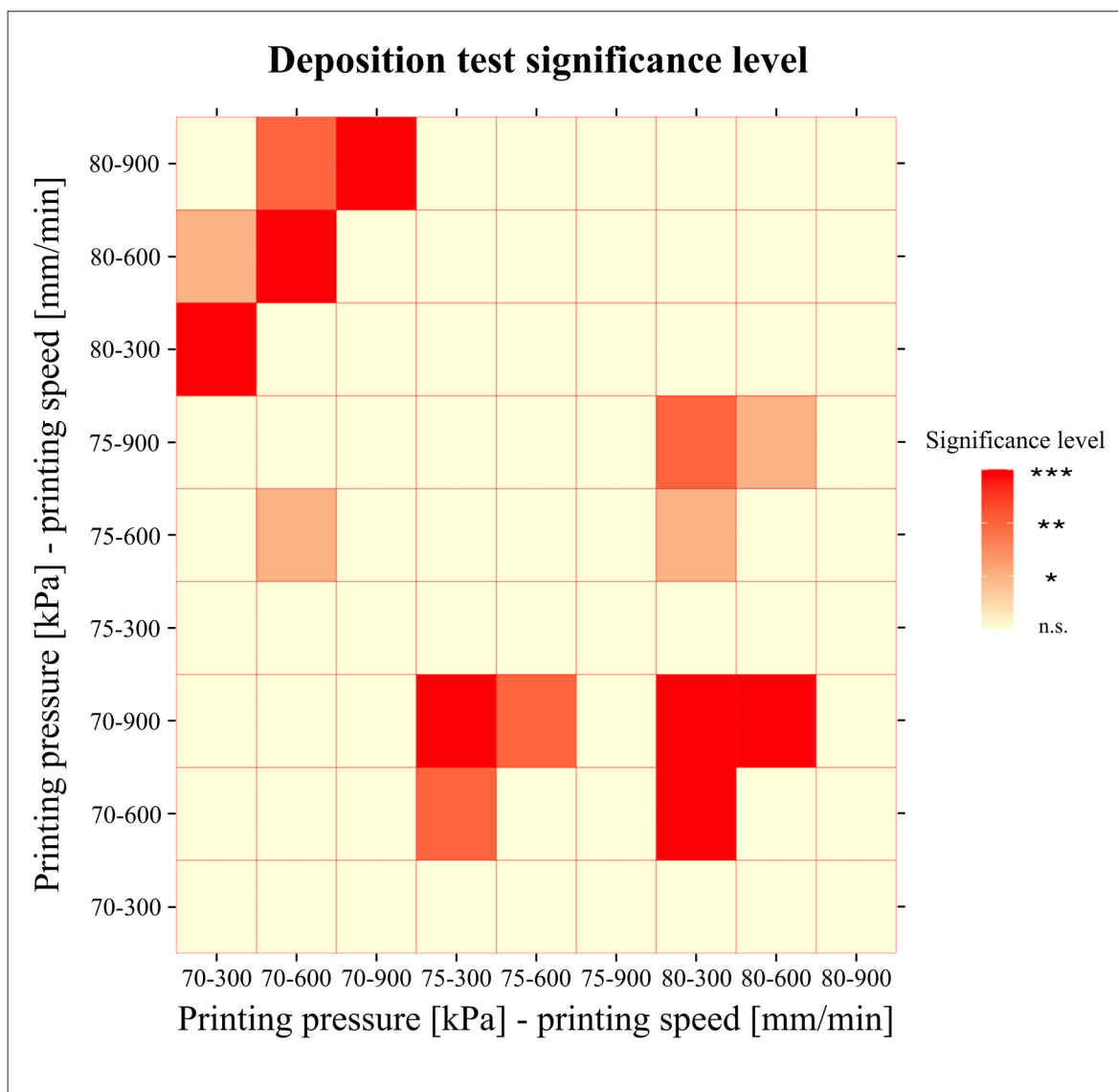


Figure S2. Deposition test. Filament surface area (mm²) per printing pressure (kPa) and printing speed (mm/min), with the significance levels plotted for all printing parameter combinations. Statistical test was conducted at a significance level of $\alpha = 0.05$. Statistical significance is indicated using the following notations: * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.

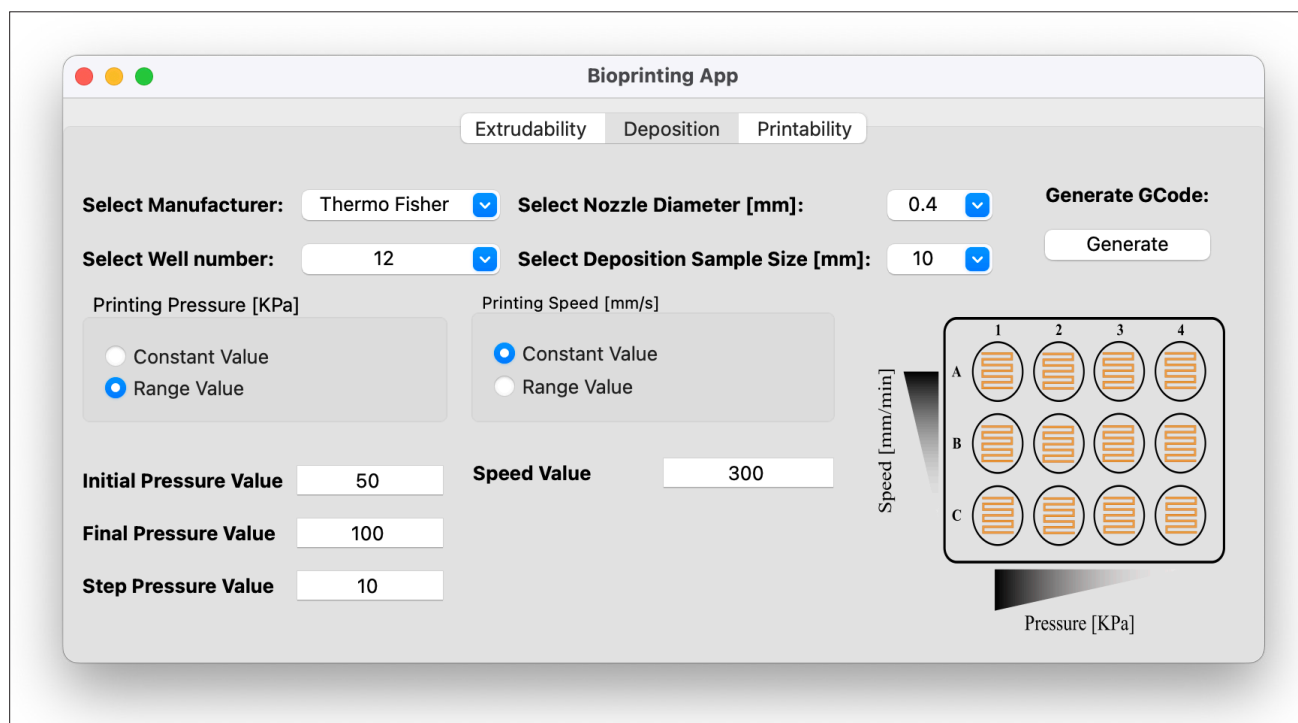


Figure S3. A user-friendly interface on the custom script was developed to automatically generate G-codes for assessing bioprinting quality, including extrudability, deposition, and printability tests.

Supplementary video

Video S1. Custom 3D-printed lens support operation: moving backward and forward along the X- and Y-axes; switching the “ON/OFF” switch on the illumination system.