

Supplementary data

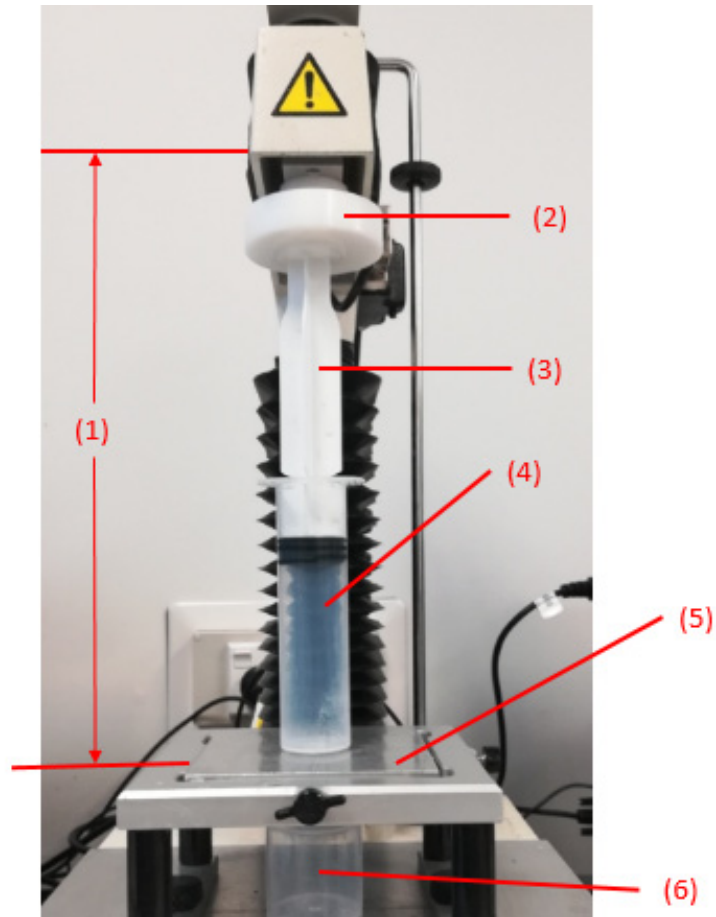


Figure S1. Design of forward extrusion test: A syringe and piston device attached to a texture analyser.

- (1) The framework of textural analyser (TA.XT.plus, Stable Micro Systems, UK).
- (2) A 61 mm cylindrical probe.
- (3) A piston.
- (4) A syringe.
- (5) HDP/90 platform with a hole in the centre.
- (6) A container to collect the paste extruded out from syringe.

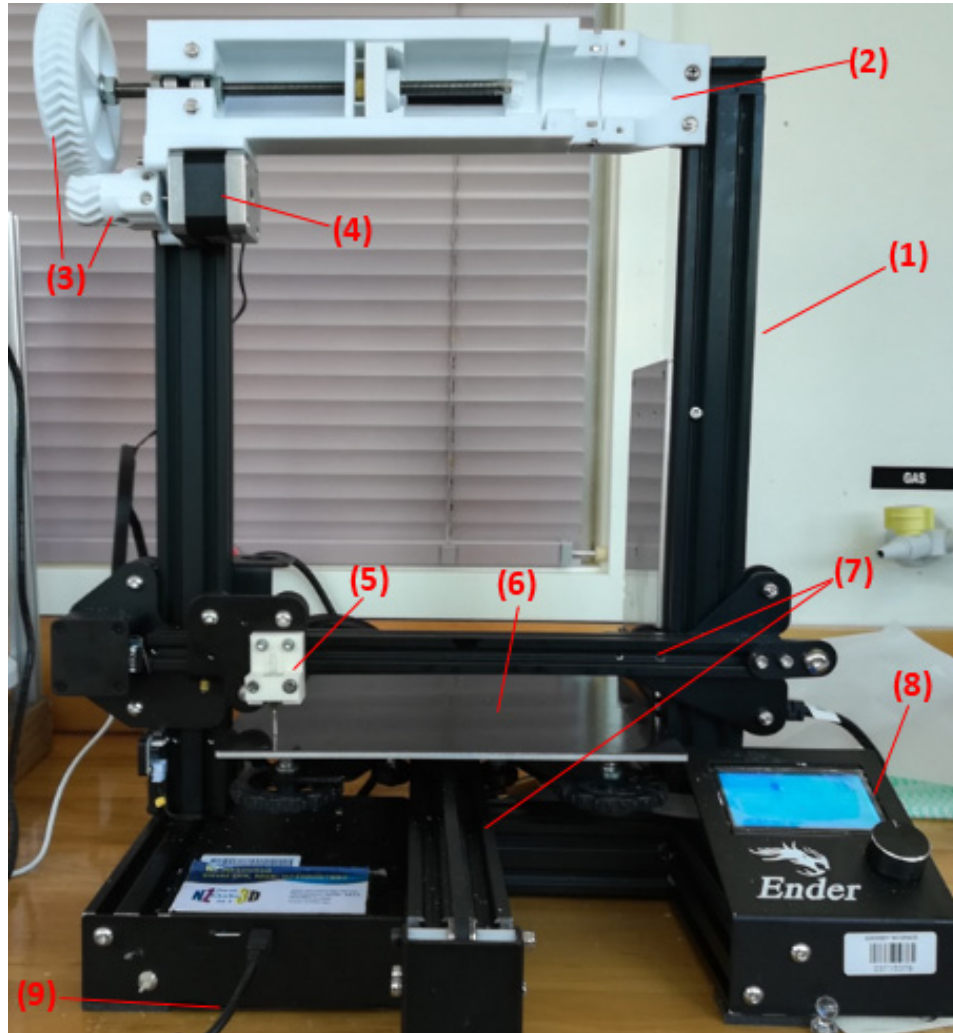


Figure S2. Photograph of LVE 3D printer used in this study.

(1) Framework of Ender-3 3D printer. (2) Extruder unit. (3) Gears. (4) Motor. (5) Nozzle holder. (6) Platform. (7) Conveyor belts, controlling the movement to x, y, z axis directions. (8) Operation menu. (9) USB connection to computer.