

Review of: "System and Method for One or More Extruders Using a Robotic Arms to Print a 3D Model"

Daniel Vera¹

1 University of Warwick

Potential competing interests: No potential competing interests to declare.

While the topic (additive manufacturing, "3D printing") is relevant in today's context, the envisaged system is overly simplistic and does not offer any new or added value; The use of a robot for "3D printing" is unrealistic due to the cost, complexity, and potential challenges in achieving the required accuracy and speed for the process; As highlighted by the author, there is a need for complex path planning in order to avoid collisions, and the configuration does not offer any advantages over standard XY axis printer setups (e.g., variable printing plans, speed, etc.) other than maybe increased printing volumes. It should be noted that the spherical working envelope of a 6R robot will result in restriction of the printing area the taller the part: e.g., reduced area, inability to print above the centre of the rotating plate. The envisaged solution does not consider the size of the printing head or how it would further impact robot speed and working volume, nor the material feeding, etc.

Qeios ID: Z01XQD · https://doi.org/10.32388/Z01XQD