

ADDITIVE MANUFACTURING SYSTEMS AND METHODS OF GENERATING CAD MODELS FOR ADDITIVELY PRINTING ON WORKPIECES

ABSTRACT

An additive manufacturing system (100) may include a controller (2000) operably coupled to a vision system (102) and an additive manufacturing machine (104). The controller (2000) may be configured to determine in a library-CAD model (850), a nominal model-interface (854) traversing a nominal model (852) corresponding to a workpiece (116), to compare the nominal model-interface (854) of the library-CAD model (850) to a digital representation of a workpiece-interface (120) of the workpiece (116), where the digital representation has been obtained using the vision system (102), and to generate a model of an extension segment (802) based at least in part on the nominal model-interface (854), with the model of the extension segment (802) being configured to be additively printed on the workpiece-interface (120) of the workpiece (116).

[Figure 11A]