

Thesis Title	Developing an NC File for a Vertical Milling Machine from STL File
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Abstract

In modern product design, Rapid Prototyping is getting significant in fabricating prototype within the short period of time either for inspection product shape and verifying properties of the raw material. Using CAD software to create STL file that can manipulate Rapid Prototyping Machine, product prototype can be designed, redesigned, fabricated and improved until the standard prototype is yield. Thus, CAM software will be implemented in manufacturing process. This whole manufacturing process is ideal for the manufacturer. However, it is expensive and time consuming in the production line.

This research, then, aim to create a low cost CAM software that can be used with STL file to control CNC Milling machine and fabricate the prototype via zigzag movement with limited maximum error of ± 0.01 mm. The experiment confirmed that the constructed CAM software can create instruction command in STL format that is workable in manipulating the CNC milling machine at the limited maximum error of ± 0.01 mm.

Keywords : CAD/CAM/CNC Milling/NC Code/STL