# POST PROCESSOR MODIFICATION AND MACHINE SIMULATION IN 5-AXIS MACHINING USING FUSION 360 CAM

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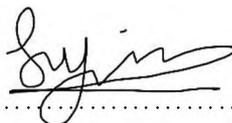
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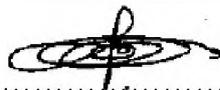
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ABSTRACT

Machining with multi axis will gives a lot of problems when not doing it right. Problems such as errors in programming, jerk, and collision is common in multi-axis machining. This paper proposes a way to modify the post processor for Fusion 360 to reduce jerk and set a specific home position location for DMU50 machine for Fusion 360 at the UiTM Permatang Pauh FKM CNC laboratory. Currently, the default post processor for Fusion 360 cannot be used in term of machining in simultaneous 5-axis and the tool also stop after retracting at the last process and do not return to home position. The post processor was modified in term of its define axis, home position location, and also a setup of post processing from Fusion 360 CAM was shown to enable a multi-axis machining. Machine simulator was used to verify the modified post processor. Machine simulator used was Fusion 360, Vericut 8.2, and Sinutrain 840D sl software. In conclusion, the results from the simulation and plotted graph shown a reduction in fluctuation during 5-axis simultaneous machining process. The tool also travel to specify home position after the last machining process. The success of modification of post processor has benefits the users who uses the CAM in Fusion 360 software.