

ABSTRACT

In the world of the role of industry tools that can work automatically so in need, one of which is automatic board cutting tools. These devices are expected to work automatically and can generate a precision piece in accordance with the sketches are made.

In this final project realized a tool that can later be used to cut the board automatically and the precision of the desired size. This tool can cut the board automatically according to the sketch drawings that have been made in the computer. In autoCAD software tool is used as a medium for sketching desired, then the resulting file from autoCAD software will then be processed back into the CAM software to get the output from the G-code text file that is used for programming into the machine language, then then used a microcontroller circuit as a data processor of the computer language into machine language that is connected by a printer port as the output of the computer used to drive an electric motor (stepper motor). As for the cutter, the tool uses a special type of drill bit as a tool endmill cutter and a stepper motor as a driving tool which has been compiled in such a way that is possible will be able to cut the board in omatis and precision according to the sketch that has been made.

It is expected that these tools can assist in the production process so as to increase production significantly when compared to using a cutting tool manually.

Key words: *autoCAD, CAM, microcontroller, stepper motor, automatic, precision, printer port.*