

PORTABLE CNC LASER CUTTING DESIGN

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ABSTRACT

The purpose of this study is (1) Determining the design design of CNC *laser cutting*; (2) Determine the design of the CNC *laser cutting* control system; and (3) Determine the strength and deformation of the CNC *laser cutting* design.

This research is included in the type of *Research & Development (R&D)*. *Research & Development* is the process or steps to develop a new product or improve an existing product. *Research & development* can also be interpreted as research used to produce a particular product and test the effectiveness of the product. The object of this research in this study is the design of CNC *laser cutting*. The design is in accordance with the *design requirements & objectives* of the user. The data obtained from this research is design requirements & objectives, design concepts, simulation results, and *detailed engineering design* from CNC *laser cutting*. Data collection techniques used are literature studies and observations, *focus group discussions*, and experiments, and documentation.

The exterior of this research is *the detailed engineering design of CNC laser cutting*. This research is targeted to be included in reputable international journals.

Kata Kunci: *laser cutting, CNC,*