



**PROSES REKONSTRUKSI DAN PERBAIKAN PADA MESIN 3D
PRINTING**

FINAL PROJECT REPORT

Submitted as one of the requirements to obtain Sarjana Teknik

By

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FACULTY OF ENGINEERING

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CIKARANG

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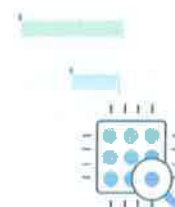
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ACKNOWLEDGEMENT

Assalamualaikum Wr. Wb.

Dengan mengucapkan puji syukur atas kehadiran Allah SWT atas Rahmat dan Hidayah-Nya, sehingga penulis dapat menyelesaikan Final Project Report yang berjudul **“PROSES REKONSTRUKSI DAN PERBAIKAN PADA MESIN 3D PRINTING”** ini bisa

diselesaikan. Skripsi ini diselesaikan dengan tujuan untuk memenuhi salah satu persyaratan akademik untuk menyelesaikan Program Studi Teknik Mesin, Fakultas Teknik, President University.

Pada kesempatan ini penulis juga ingin menyampaikan rasa terima kasih yang mendalam dan pengarahan yang sebesar-besarnya kepada semua pihak yang telah membantu dalam menyelesaikan penulisan Tugas Akhir ini, kepada

1. Ibu Dr. Eng. Lydia Anggraini, S.T., M. Eng selaku Kepala Program Studi Teknik Mesin *President University*.
2. Bapak Nanang Ali Sutisna, M. Eng selaku Dosen Pembimbing yang sudah bekenan merelakan waktu nya untuk memberi bimbingan, arahan, motivasi kepada penulis sehingga dapat terselesaikannya penyusunan tugas akhir ini.
3. Orang tua, keluarga, dan teman-teman yang selalu memberikan semangat serta dukungan kepada penulis agar bisa menyelesaikan penulisan ini.
4. Pihak-Pihak yang telah membantu dalam melakukan kegiatan penelitian dan penulisan tugas akhir ini.

Kritik serta saran yang telah diberikan sangat diharapkan untuk membangun dan memperbaiki di masa yang akan datang. Terimakasih

Bekasi, 21 March 2025

Juandhika Syach Alwy

ABSTRAK

3D printing adalah salah satu metode revolusi untuk masa depan dalam membangun suatu produk. Perkembangan teknologi ini memiliki banyak keunggulan didalamnya, seperti pengurangan waktu dalam purwa rupa serta penurunan cedera pada proses pengerjaan. Hal-hal yang terpenting dalam proses manufaktur pembuatan mesin 3D printer yang diteliti dengan seksama agar mendapatkan bahan-bahan yang sesuai dengan model 3D printer yang akan dibuat dan tersedia dilapangan. Proses dari pembuatan rangka komponen part pada mesin dilakukan dengan beberapa metode pemesinan seperti pemotongan, bubut, *milling frais*, pengeboran serta penggerindaan untuk mendapatkan hasil bentuk sesuai rancangan. Hasil rangka yang sebagian besar dibuat dengan memanfaatkan material aluminum sangat membantu dalam pembentukan bagian-bagian mesin 3D printer serta mempermudah dalam proses fabrikasi ataupun *improvement* terhadap komponen mesin yang sudah dilakukan.

Kata kunci: Printer 3D, Rekonstruksi, *Improvement*

ABSTRACT

3D printing is one of the revolutionary methods for the future in building a product. The development of this technology has many advantages in it, such as reducing the time in the prototype and reducing injuries in the process of work. The most important things in the manufacturing process of making a 3D printer machine are carefully studied in order to obtain materials that are in accordance with the 3D printer model that will be made and available in the field. The process of making the component frame of the part on the machine is carried out with several machining methods such as cutting, turning, milling, drilling and grinding to get the shape according to the design. The results of the frame which are mostly made using aluminum material are very helpful in forming parts of the 3D printer machine and simplifying the fabrication process or improvement of the machine components that have been done.

Keywords: 3D Printer, Reconstruction, Improvement

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