

### ABSTRAK

Pengembangan robot sebagai asisten telah menjadi salah satu solusi yang banyak diterapkan pada berbagai tempat, seperti museum, tempat wisata, restoran, maupun di kelas. Robot asisten dinilai mampu membantu pekerjaan manusia secara efektif. Pada tugas akhir ini, pengembangan robot berfokus sebagai mesin alat pencetak menggunakan laser IOT. Penerapan IOT dan mikrokontroler ESP32 disertai dengan berbagai fungsi tambahan lainnya, seperti relay modul,. Fungsi otomasi ini terintegrasi ke dalam mikrokontroler ESP32 yang sebagai kendali utama.

**Kata kunci:** mesin laser, kendali ESP32, IOT, relay modul.



**ABSTRACT**

*The development of robots as assistants has become a solution that is widely applied in various places, such as museums, tourist attractions, restaurants, and in the classroom. Assistant robots are considered capable of helping human work effectively. In this final project, the development of robots focuses on printing machines using an IOT laser. The implementation of IOT and the ESP32 microcontroller is accompanied by various other additional functions, such as relay modules. This automation function is integrated into the ESP32 microcontroller which serves as the main controller.*

**Keywords:** *laser machine, ESP32 control, IOT, module relay.*

