

## **ABSTRACT**

Some of this year has many outstanding tools that is able to facilitate human work in many ways, but there are still some things that are still made traditionally, one of which is to make cake decorations. This happens because the necessary creativity to decorate cakes and specialized skills that not everyone can do so. So we need a tool that can simplify everyone to be able to decorate a cake.

In this final project designed a cake decorator machine capable of decorating a cake automatically with a simple decoration. This machine uses an Arduino Uno as controller and stepper motors as the driving mechanics. The method used to position the spray nozzle dough is absolute coordinate method,

Cake decorator machine designed in this thesis using two stepper motors to move the nozzle and the base. Cake decorator can decorate a cake with a speed of 1.3 seconds per 10 mm and has a good degree of accuracy.

Keywords: Cake decorator, Arduino, Nozzle, G-code, the absolute coordinates