

CHAPTER 1

INTRODUCTION

1.1. Background

Masks are items that cannot be separated from everyday life. Especially during this pandemic, mask must be used when leaving the house or doing activities outside the home. However, there are still many people who underestimate the use of masks. Example in the office, many employees sometimes don't wear masks according to the rules when in the office area. Even other people who see it sometimes don't care.

This mask detection system can detect people who use masks, do not use masks, and how to wear masks incorrectly. If the person is wearing the mask correctly, the system can detect whether the mask has been worn correctly. If you are not wearing a mask or wearing a mask incorrectly, the system can detect if you are not wearing a mask properly and the person's face will be captured and saved in a computer file.

The system for detecting the use of masks was created to monitor the use of masks. It is hoped that with this system people in the public are more aware of the use of masks during this pandemic. That way everyone will feel safe when people wear masks according to health protocols.

1.2. Problem Formulation

Based on the formulation of the problem in the research on the above background. These problems that will be discussed later in this study. The question of the formula is:

- a. How to detect masks using the Haar Cascade method?
- b. Will the mask be detected if there are more than one face?

- c. Will the mask detect not wearing a mask if more than one face?

1.3. Scope

The scope of this final project is to detect the use of masks properly using the Haar Cascade method. Using a video for detects a face that is wearing a mask and not wearing a mask. The scope of the studies is limited, for example the used images is only human face.

1.4. Objective

Initially, the system was created for the detection of masks in public places so that people pay more attention to health protocols that should be obeyed. The program will detect not wearing a mask if a nose and mouth object is detected. For this reason, photo capture is also given for people who are detected not using masks or using masks that are not correct.