**Chapter Three**

**System Analysis**

# 3.1 Introduction

In this chapter we analysis and design the system by introduce the algorithm We are used in the project; insection3.2 we will explain the system of helicopter camera which include FD and the discussion of it, DFD and the discussion of it .

# 3.2 System Analysis

## 3.2.1 System Functional Diagram (FD)

We introduce in this section FD for the system and discuss of it Function diagram is a process of divisions from a higher function Appropriate smaller function which shown in the figure 3.1. [1]

Figure 3.1 Functional Diagram

## 3.2.2 System Flow Chart Diagram

Figure 3.2 Flow Chart Diagram

A flowchart is a type of diagram that represents an algorism, workflow or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields. [1]

## 3.2.3 Context Diagram

Figure 3.3 Context Diagram

AContext Diagram (CD) in software engineering and systems engineering is a diagram that defines the boundary between the system, or part of a system, and its environment, showing the entities that interact with it.This diagram is a high level view of a system. [1]

## 3.2.4 Data Flow Diagram (DFD)

Figure 3.4 Data flow Diagram

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design). [1]

## 3.2.5 Represents DFD for process 2:-

# Figure 3.5 DFD for process 2

## 3.2.5 Sequence Diagram

Figure 3.6 Sequence Diagram

A sequence diagram shows, as parallel vertical lines (lifelines), different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner. [1]

## 3.2.6 use-case Diagram

# Figure 3.7 use-case Diagram

A usecasediagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. [1]

# 3.3 references

1. www.wikipedia.org

# 3.4 Conclusion

In this chapter we learned how to make system analysis to the project from FD, DFD; we know which algorithm we are used in our project.