**Chapter 2: Introduction to Colour Sorting and Count Machine**

**2.1) Problem definition**

Many a times it is seen that in the industry, there is a need to sort products according to colour. For this purpose this project showcases the colour sorting machine. Along with the systematic colour sorting technique, it will also be able to count the number of items produced which is mostly done by other machines in the real world industries. This combination of sensors to implement the colour sorting machine as well as count the number of products that are produced will be a new addition to already existing inventions and can be used as a two in one machine instead of using many bulky, individual and complicated machines.

**2.2) Aims and Objectives**

* The main aim of this project is to sort products according to their colour.
* This will help in an organized segregation of products and simplify further processes involved in manufacturing products.
* In addition to colour sorting, a count of the products that are produced can also be implemented.
* This will ensure a compact method of colour sorting as well as counting the products.
* It is very useful for keeping track of products in large producing industries.

**2.3) Scope**

* Sort objects quickly according to colour.
* It reduces labour cost.
* It reduces manual work.
* It reduces time consumption
* By using IR sensor it can count the number of objects.

**2.4) Features**

* Provides a smooth conveyer for the objects.
* Simplifying the task such as recognizing or differentiating colours.
* Large amount of objects of different colours can be sorted quickly.
* Using servo motors the implementation becomes easy.