1. **Introduction**

Robots have been extensively used in various industries for a long time. One of the exciting and popular applications of robots is their ability to track and follow humans. The project aims to design and develop a human following robot using Arduino UNO. The robot will be able to track and follow humans based on the color of clothing.

* 1. **Background Study**

Human following robots have been gaining significant attention in recent years. They have many applications in the field of automation, security, and even in the entertainment industry. The robots can be programmed to track and follow individuals using various techniques such as sensors, cameras, and other navigation techniques.

* 1. **Objective**

The main objective of this project is to design and develop a robot that can track and follow humans based on the color of clothing. The robot will be able to move in different directions and avoid obstacles to follow the person.

* 1. **Motivation**

The motivation behind this project is to explore the capabilities of robots and how they can be used to make our lives easier. The project can have many practical applications such as security, elderly care, and even entertainment.

* 1. **Users**

The human following robot can be used by a wide range of users, including security personnel, elderly care centers, and even amusement parks. The robot can be programmed to follow specific individuals or groups of people.

* 1. **Scope of this System**

The scope of this system is to design and develop a robot that can track and follow humans based on the color of clothing. The robot will be able to move in different directions and avoid obstacles to follow the person. The system will use an Arduino UNO board to control the movement of the robot and a color sensor to detect the color of clothing.

* 1. **Conclusion**

The human following robot using Arduino UNO is an exciting project that has many potential applications in various industries. The robot will be able to track and follow humans based on the color of clothing, making it a useful tool for security and elderly care centers. The project also has great potential for use in the entertainment industry.