# About the Servo Motor Braking System Project

## Project Description

This project demonstrates an automatic braking system using an Arduino, a servo motor, an IR sensor, and a relay. The system is designed to detect obstacles and stop a motorized system while applying a braking mechanism via a servo motor. This is useful in applications such as safety mechanisms for moving vehicles or automated conveyor systems.

## Features

- Detects obstacles using an infrared (IR) sensor.  
- Stops the motor by deactivating a relay when an obstacle is detected.  
- Activates a servo motor to apply a brake mechanism.  
- Automatically releases the brake and restarts the motor when the obstacle is cleared.

## Components Required

1. Arduino board (e.g., Arduino Uno)  
2. Servo motor  
3. IR sensor module  
4. Relay module  
5. Jumper wires  
6. Breadboard  
7. Power supply (as per motor and servo requirements)