Project Title**: Self-Balancing Car with Bluetooth Control**
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This project involves the design and implementation of a self-balancing car that uses real-time sensor feedback to maintain its balance and can be controlled via Bluetooth. The car uses an MPU6050 gyroscope and accelerometer sensor to measure the tilt angle, which is then processed by an Arduino Nano microcontroller. Based on the calculated angle, the Arduino adjusts the motor speeds using a PID control algorithm to keep the car upright.

The components used in this project include an Arduino Nano, L298N motor driver, MPU6050 gyroscope/accelerometer, DC gear motors with wheels, and an HC-05 Bluetooth module for remote control. The software is developed using the Arduino IDE, and the Bluetooth control is implemented via a mobile app to send directional commands. This project combines concepts of embedded systems, control theory, and wireless communication.