

```
class DriverlessCar:
    def __init__(self):
        self.speed = 0
        self.state = "stopped"
        self.brake_system = BrakeSystem()
        self.lidar_sensor = LightDetectionRanging()
        self.camera = Camera()

    def accelerate(self):
        self.speed += 1
        print("Accelerating. Speed:", self.speed)

    def decelerate(self):
        if self.speed > 0:
            self.speed -= 1
        print("Decelerating. Speed:", self.speed)

    def drive(self, target_speed: int):
        while self.speed != target_speed:
            self.accelerate()
        # Accelerate the car until the target speed is reached
        #self.speed = 0
        self.state = "driving"
        print("Car driving.")

    def stop(self):
        while self.speed > 0:
            self.brake_system.applyBrake()
            self.decelerate()
        self.state = "stopped"
        # Decelerate the car until the speed reaches 0

        print("Car stopped.")

    def park(self):
        self.speed = 0
        self.state = "parked"
        self.brake_system.applyBrake()
        print("Car parked.")
        # Set the car's state as "parked"
```