The supplied Java code is for a car **cruise control** system. This cruise control system consists of the following parts to control the car speed: **Brake**, **Engine**, **Shaft**, and **Throttle**. At this time, the car company orders these parts from a company called Digital Logic Horizon.

1. [15%] Which SOLID principle this code violates? You must mention the reason.

Answer1: Open-Closed principle (because the code cannot be extended to other types).

However Answer 2 should be acceptable as well.

Answer2: Dependency inversion principle (because the cruise control class (high level class) depends on concrete/implementation classes (low level classes)

1. [85%] Update the code so that your code does not violate the above principle

The code as shown in the key solution must use interfaces. This way new implementation can be added without changing existing code. They will simply implement (realize) those interfaces.