

ShinyMotors



ShinyMotors manufactures state-of-the-art automatic car wash machines renowned for their performance and durability. In order to keep up with competitors, they have decided to develop a self-service device so drivers can pay directly with their credit cards at the car wash. This self-service device will make use of a touch screen.

However, not all the facilities owned by our (potential) customers have Internet access. Therefore, the new device has also to be compatible with the existing feature of entering codes purchased at the customer's check out counter. It must also rely on the **modbus** communication protocol to interact with the automatic car wash.

Customers may purchase a device without the "pay with card" feature.

When drivers attempt to buy a ticket with the wash code at the counter, they indicate the shop assistant which program they want to use, pay a fee, and a code valid for 3 days is issued to them. Then they can enter this code at the device to start the wash.

Alternatively, with devices that support the "pay with card" feature, a driver can select this option, choose their preferred program and proceed to pay with their card. If the operation is successful, the driver has the opportunity to print out a receipt. Therefore, this device needs to incorporate a card reader and a printer.

The system must support the major card vendors (Visa, Mastercard, AmEx).

The four programs available in the car wash machine are:

1. Quick wash (water spray only)
2. Standard (soap foam, water spray, hot air drying)
3. Premium (soap foam, water spray, liquid wax, hot air drying)
4. Ultimate (soap foam, water spray, liquid wax, UltraShine liquid, hot air drying)