**Bad UX: Gas Pump Payment and Fueling Process**

**1. Description of the User Experience Issue**

Despite being part of everyday life, the experience of paying for gas at a pump is outdated, inconsistent, and often frustrating. Users commonly run into:

* **Inconsistent card reader instructions** — some ask you to insert and remove quickly, others keep the card inserted.
* **Low-contrast, pixelated screens** — especially difficult to read in bright sunlight.
* **Clunky, misaligned buttons** — physical buttons don’t always match the labels shown on the screen.
* **Redundant prompts** — users are asked unnecessary questions (e.g., car wash, receipt) which delay the fueling process.
* **Unclear process flow** — users often wonder when it’s okay to lift the nozzle, or if the card was even accepted.

These issues are amplified for first-time users, elderly individuals, or non-native English speakers.

**2. Usability Critique**

From a usability standpoint, gas pumps fail in several key areas:

| **Usability Principle** | **Issue** |
| --- | --- |
| **Learnability** | The process is not intuitive. Users often have to guess the correct sequence. |
| **Efficiency** | Multiple unnecessary prompts slow the process down. |
| **Visibility** | Screen text is often small, faded, or hard to see in daylight. |
| **Consistency** | Each gas station brand uses a different interface, adding to user confusion. |
| **Accessibility** | Poor contrast and small text make it hard for visually impaired users. |

**3. Proposed Solution**

To improve this experience, the gas pump interface needs a redesign focused on simplicity, visibility, and accessibility.

**Improved Interface Features:**

1. **Modern Touchscreen Display**
   * High-contrast colors and large font sizes for better readability.
   * Simple, intuitive menu with fewer steps.
2. **Streamlined Process**
   * Only three core steps:
     1. Tap or insert payment.
     2. Select fuel grade.
     3. Begin fueling.
   * Optional steps like car wash or receipt selection are moved to the end or the app.
3. **Contactless Mobile Payment**
   * Apple Pay, Google Pay, or QR code for app integration.
   * Tap-to-pay reduces physical interaction with outdated card readers.
4. **Consistent Button Layout**
   * Digital buttons displayed on-screen directly under their associated option.
5. **Accessibility Features**
   * Audio guidance for visually impaired users.
   * Language toggle (e.g., English/Spanish) at the beginning.

**4. Summary**

Redesigning the gas pump interface may seem small, but it improves a daily task for millions. By reducing cognitive load, simplifying the process, and improving accessibility, we create a better user experience for everyone — especially those who struggle with unclear instructions and outdated hardware.