**Understanding the Code**

**What the Function Does**

The function show is used to display a series of characters (a string) on an LCD screen. Think of the LCD screen like a small TV screen that can show letters and numbers.

**How It Works**

1. **Function Definition**:
2. void show(unsigned char \*s)
   * This means we are creating a function named show.
   * It takes one input, which is a pointer to a string of characters. A string is just a sequence of characters like "Hello" or "1234".
3. **Loop to Go Through the String**:
4. **while**(**\***s) {
   * while(\*s) starts a loop that keeps running as long as \*s is not the end of the string. In C programming, strings end with a special character called the null character, written as '\0'.
   * \*s means we are looking at the character that s is pointing to.
5. **Sending Characters to the LCD**:
6. dat(**\***s**++**);
   * dat(\*s++) does two things:
     + \*s gets the current character from the string that s is pointing to.
     + s++ moves the pointer s to the next character in the string.
   * The dat function sends this character to the LCD screen.

**Step-by-Step Explanation**

Imagine you have a string "Hi!" and you want to show this on the LCD screen using the show function.

1. **Pointer Setup**:
   * The string "Hi!" is stored in memory, and s points to the first character, 'H'.
2. **First Loop Iteration**:
   * while(\*s) checks the character s is pointing to ('H'). Since 'H' is not the end of the string, it enters the loop.
   * dat(\*s++) sends 'H' to the LCD screen.
   * s++ moves the pointer to the next character, 'i'.
3. **Second Loop Iteration**:
   * while(\*s) checks the character s is pointing to ('i'). Since 'i' is not the end of the string, it enters the loop again.
   * dat(\*s++) sends 'i' to the LCD screen.
   * s++ moves the pointer to the next character, '!'.
4. **Third Loop Iteration**:
   * while(\*s) checks the character s is pointing to ('!'). Since '!' is not the end of the string, it enters the loop.
   * dat(\*s++) sends '!' to the LCD screen.
   * s++ moves the pointer to the next character, which is the null character '\0'.
5. **End of the String**:
   * while(\*s) checks the character s is pointing to (null character '\0'). Since this is the end of the string, it exits the loop.

**Summary in Simple Terms**

* The show function takes a bunch of letters (a string) and shows them on an LCD screen.
* It looks at each letter one by one and sends it to the screen.
* It keeps doing this until it reaches the end of the string.

**Visualizing the Process**

1. **Start with "Hi!"**:
   * s points to 'H'.
2. **First Letter**:
   * dat('H') sends 'H' to the screen.
   * Move to 'i'.
3. **Second Letter**:
   * dat('i') sends 'i' to the screen.
   * Move to '!'.
4. **Third Letter**:
   * dat('!') sends '!' to the screen.
   * Move to end of the string.
5. **End**:
   * Loop stops because it reached the end of the string.

This way, the show function efficiently writes each character of the string to the LCD screen one by one.