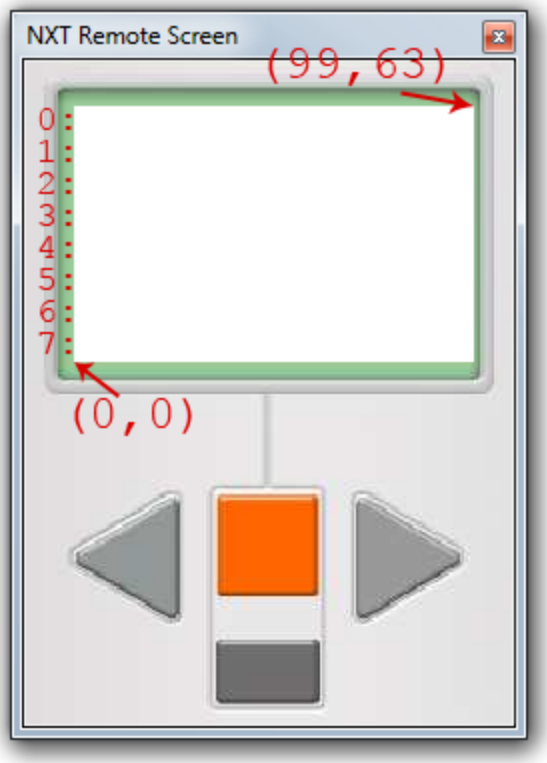
The NXT Screen



We can use RobotC to print text or draw shapes on the LCD screen. Take a look below at how this works:

The NXT is equipped with a 100 *wide* by 64 **pixels** *high* display.

The **bottom left corner** is **point (0, 0)** and the **top right corner** of the display is point **(99, 63).**

There are **eight text lines numbers 0 to 7.** 0 is the top line and 7 is the bottom line of the display.

Common Ways to Print text on the NXT screen:

```
nxtDisplayBigTextLine(3, "%d", printMe)
```

(Line number, type of variable or "*specifier*", name of variable you print)

What's a **specifier**? *Just a way to tell RobotC what type of variable it is dealing with. See note below for details.*

```
nxtDisplayCenteredBigTextLine(3, "%d, %d", printMe, PrintMeToo);

nxtDisplayTextLine(3, "%s", s1);

nxtDisplayBigStringAt(0, 31, "%d, %d", printMe, PrintMeToo);

displays text at a (x,y) pixel location (0,31) (bottom center of screen)

nxtDisplayStringAt(50, 31, "Theory");

displays the string, "Theory" at position (x, y) in this case (middle
of the screen)

eraseDisplay();  // erase the entire NXT LCD display.
```

Specifiers:

When displaying different types of variables like floats, for example, you have to tell ROBOTC what you are doing.

In the case of **floats** we can use **`"%1.2f"`** as our **specifier. S**

This is standard across all 'C' - like programing languages. For example, if your float is PI **(3.14159265)**, but you only want to display "**3.14**", your string should contain, `"%1.2f"`.

1 digit before the decimal place, 2 digits after.

See more specifiers below:

Specifier	**Output**	**Example Code**	**Example Output**
%d or %i	Signed decimal integer	"%d"	4246
%e	Scientific notation (mantise/exponent) using e character	"%e"	3.9265e+2
%E	Scientific notation (mantise/exponent) using E character	"%E"	3.9265E+2
%f	Decimal floating point number	"%f"	3.14159
%6.2f	Prints a floating point number, with at least 6 characters wide and 2 decimal places		__ 50.50
%s	String of characters	"%s"	ROBOTC
%x	Unsigned hexadecimal integer	"%x"	7fa
%X	Unsigned hexadecimal integer (capital letters)	"%X"	7FA
%c	Character	"%c"	b

By the way the information that you have to put into a particular function in RobotC are call **Parameters.**

```
nxtDisplayTextLine(3, "%s", s1);
```