Keyboard Control

Understand Keyboard Control

Below is an example of how to access the keyboard. Type and Run the program, then click inside the "Figure 1" window that appears. This program waits for 0.1 seconds for a keypress, and if the key matches the arrow keys, it prints the corresponding direction pressed, otherwise it prints "No Key Pressed!"

Pressing the "q" key exits the program. Always make sure you have a way to cleanly exit your programs without using CTRL+C. If you use CTRL+C on a runaway program, you might have to reset your Bluetooth connection to get the EV3 to work properly again.

```
global key
InitKeyboard();

while 1
    pause(0.1);
    switch key
        case 'uparrow'
            disp('Up Arrow Pressed!');

        case 'downarrow'
            disp('Down Arrow Pressed!');

        case 'leftarrow'
            disp('Left Arrow Pressed!');

        case 'rightarrow'
            disp('Right Arrow Pressed!');

        case 0      % No key is being pressed.
            disp('No Key Pressed!');

        case 'q'            % Press "q" to quit.
            break;
    end
end
CloseKeyboard();

```

What does the above code do, exactly?

Line 2 – `InitKeyboard();` – Initializes the Figure 1 window that listens for key presses. Any key that is pressed is copied into the "key" variable, which is created as a global variable in line 1.

Line 4 – `while 1` – Infinite loop until a "break" is executed.

Line 5 – `pause(0.1)` – Pauses the code for 0.1 seconds.

Line 6 – `switch key` – Start of a switch case statement based on the variable "key". This tells the computer to run instructions that follow a specific case that matches the contents of the key variable. For example, if you press the left arrow key, the value of key will be 'leftarrow', and the computer will execute the code 'disp("Left arrow pressed!"). You can have more than one instruction in each case, and they can include loops and IF statements.

Line 26 – `CloseKeyboard();` – This function closes the Figure 1 window that listens for key presses. If you use InitKeyboard, you should always have a CloseKeyboard call at the end of your program.