

Functional Tests

1. At steady state (i.e. no buttons are pressed and no slider pads are pressed), Display 0 speed and Forward direction.
2. Press Btn0 and observe speed is increasing by 5 per time on LCD. No speed limit
3. Press Btn1 and observe speed is decreasing by 5 per time on LCD. And nothing will happen if speed is 0 at that moment.
4. Press Btn0 and Btn1 simultaneously and observe nothing happening.
5. Place finger on slider and observe lcd display current direction (far left– hard left; near left– gradual left; near right- gradual right; far right– hard right)
6. Place one of your finger at one side, and place your another finger at different position after that, you should observe the time_counter reset.(i.e. You need to wait another 5s to see LED1 on)
7. Place your finger on the slider over 5 seconds and observe LED1 is lit.
8. LED0 is lit when the speed on lcd is greater than 75, or when current direction is not forward and the speed on lcd is greater than 45.
9. Both LEDs are lit when case 7 and 8 happen simultaneously.
10. When the speed is greater than 75 and direction is chosen for time greater than 5s, remove the finger from the slider and observe LED1 turns off immediately and LED0 is still on.
11. When the speed is greater than 75 and direction is chosen for time greater than 5s, lower the speed to 45 or less and observe LED0 turns off immediately and LED1 is still on.