



Challenges:

Challenge 1: Use the SET RV.COLOR command to explore using the color LED. Try to find RGB values for the primary and secondary colors.

e.g. Send "SET RV.COLOR 255 155 0" will make yellow.

Challenge 2: Use the DispAt command to display your name at several locations on the screen.

Challenge 3: Have Rover drive 5 units forward. Use the READ RV.WAYPOINT.X to read and display Rover's horizontal position when Rover is finished driving.

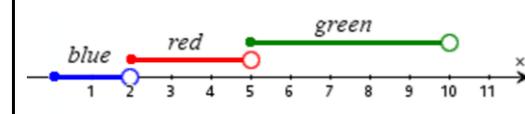
Challenge 4: Use a While..EndWhile loop to flash the LED red, then green, then blue each for 1 second until a key is pressed.



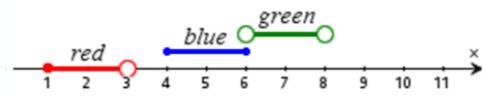
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Challenge 5: Have Rover drive 5 units forward. Predict the amount of time for Rover to reach 4 units, and Read Rover's position at that time. If the value returned is equal to 4 turn the LED green, if the value returned is less than 4 turn the LED red, and if the value is greater than 4, turn the LED blue.

Challenge 6: Have Rover drive on the number line between 0 and 10. While Rover is driving, read its position and control the LED so that the LED displays colors corresponding to the number line diagram below.



Challenge 7: Have Rover drive on the number line between 0 and 10. While Rover is driving, read its position and control the LED so that the LED displays colors corresponding to the number line diagram below.



Challenge 8: Have Rover drive on the number line between -10 and 10. While rover is driving, read its position and control the LED so that the LED displays colors corresponding to the description below.

- While Rover's position is less than or equal to zero, the LED is magenta.
- While Rover's position is greater than 0 and less than 2, the LED is off.
- While Rover's position is greater than or equal to 2 and less than or equal to 4, the LED is red.
- While Rover's position is greater than 4 and less than 5, the LED is blue.
- While Rover's position is greater than or equal to 5 and less than 10, the LED is green.
- While Rover's position is greater than or equal to 10, the LED is yellow.