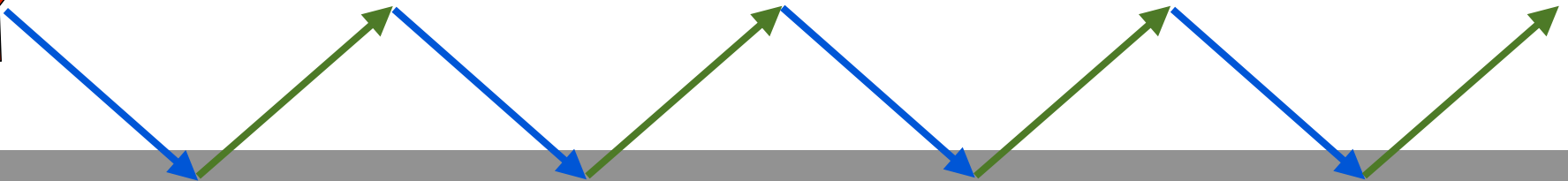
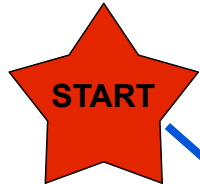




LINE FOLLOWING



Theory of Operation



Motor Actions

turn
RIGHT

turn
LEFT

turn
RIGHT

turn
LEFT

turn
RIGHT

turn
LEFT

turn
RIGHT

turn
LEFT

Light sensor

dark

light

dark

light

dark

light

dark



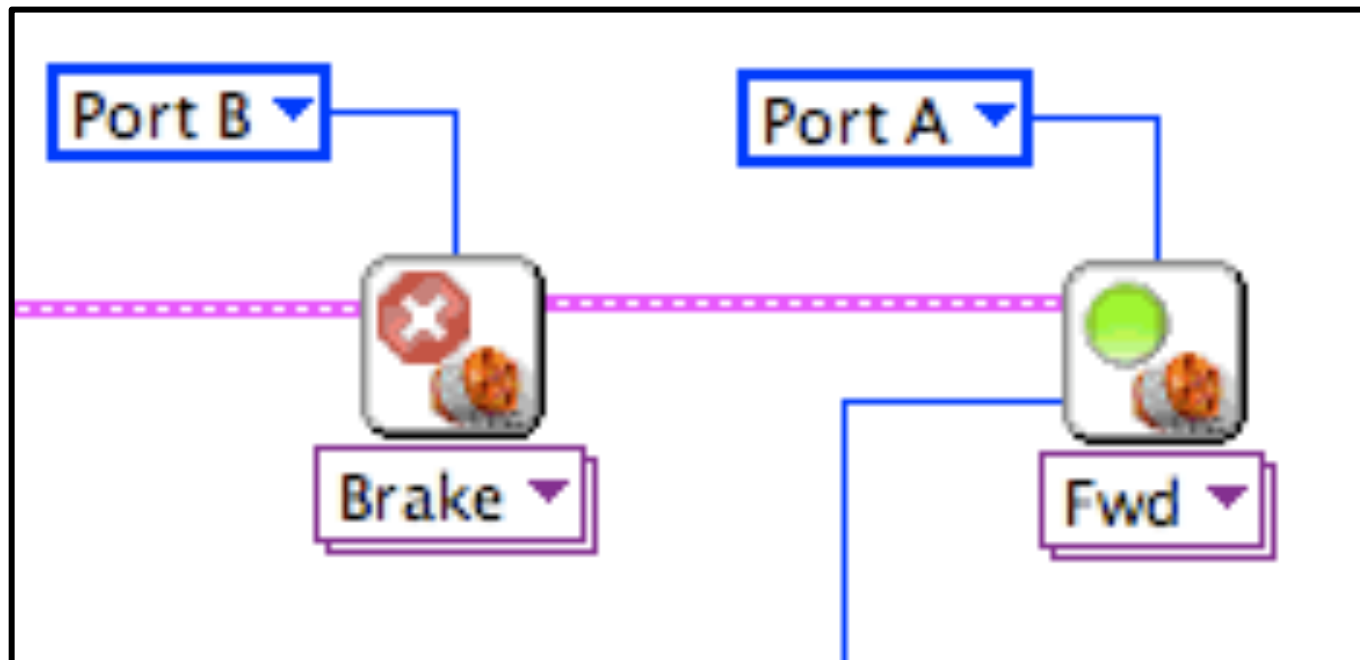
How Do We Do This?

1. If the light sensor is “light”
 - Turn Right
2. Else if the light sensor is “dark”
 - Turn Left



Turning

The left motor is A and the right motor is B

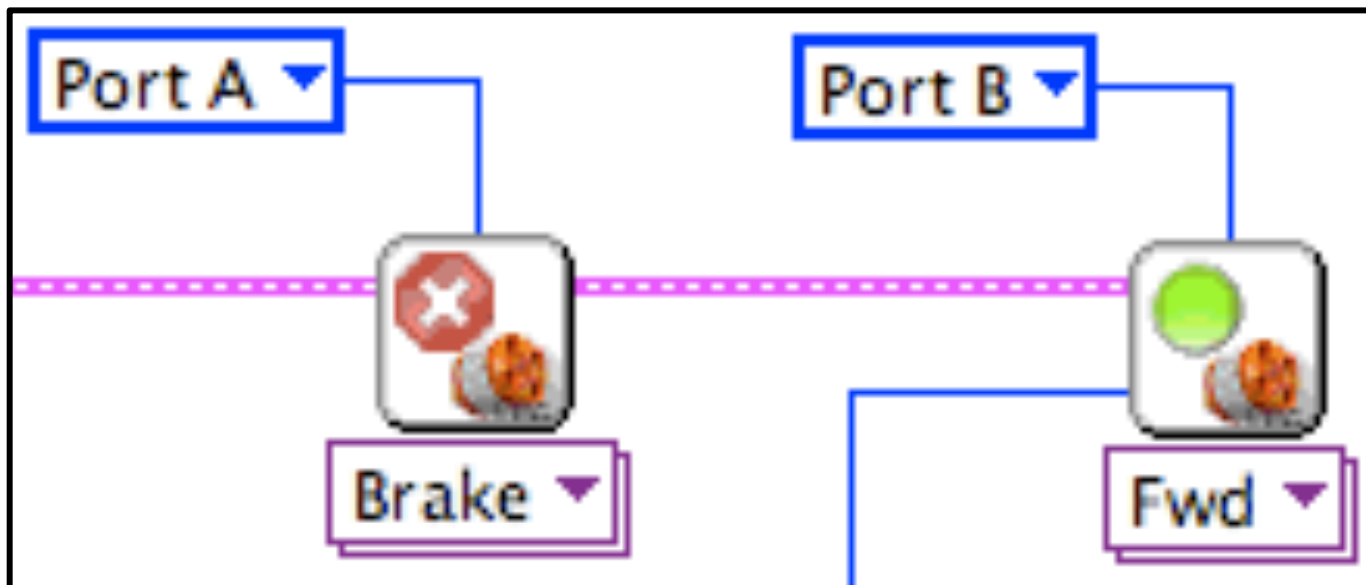


Which way does this turn?



Turning

The left motor is A and the right motor is B



Which way does this turn?



What does “dark” mean?

Do an experiment
in LabVIEW

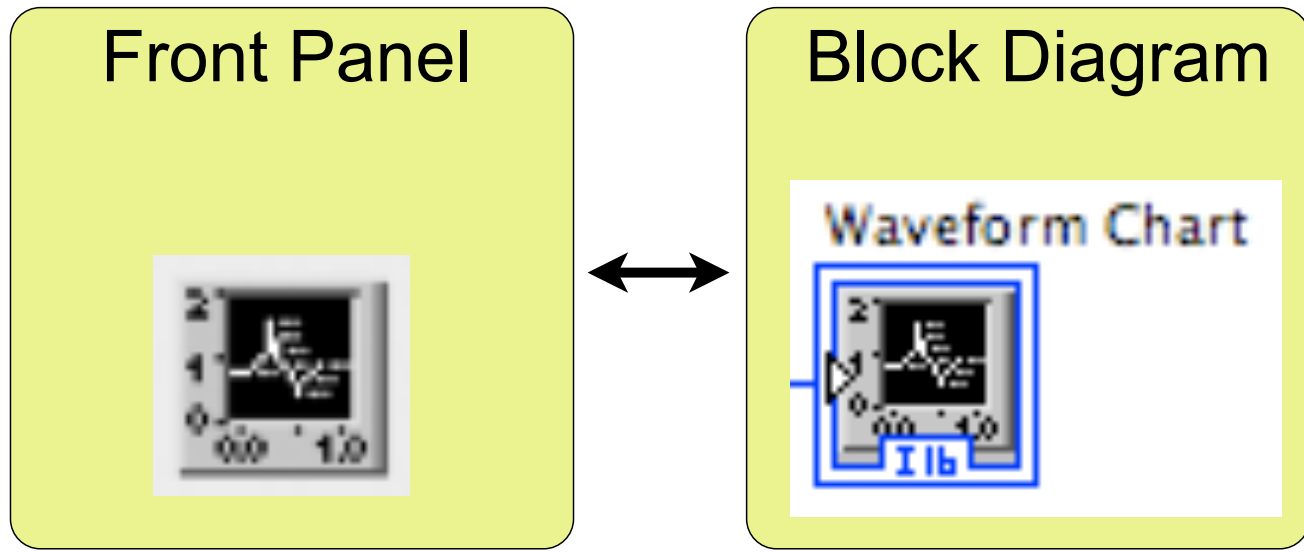


What does “dark” mean?

The image shows a software interface with a 'Waveform Chart' window and a 'Controls' menu. The 'Waveform Chart' window has a title bar 'Waveform Chart' and a sub-title 'Plot 0' with a line graph icon. The chart area is mostly black, with a small 'Waveform Chart' icon in the center. The y-axis is labeled 'Amplitude' and ranges from -10 to 10. The x-axis is labeled 'Time' and ranges from 0 to 100. The 'Controls' menu is open, showing a search bar, a 'View' dropdown, and a list of control types: Numeric, Boolean, Array & Cluster, Ring & Enum, Graph, Decorations, String & Path, NXT Refnum, Motor Configurations, and Select a Control... The 'Graph' category is expanded, showing two waveform chart icons.

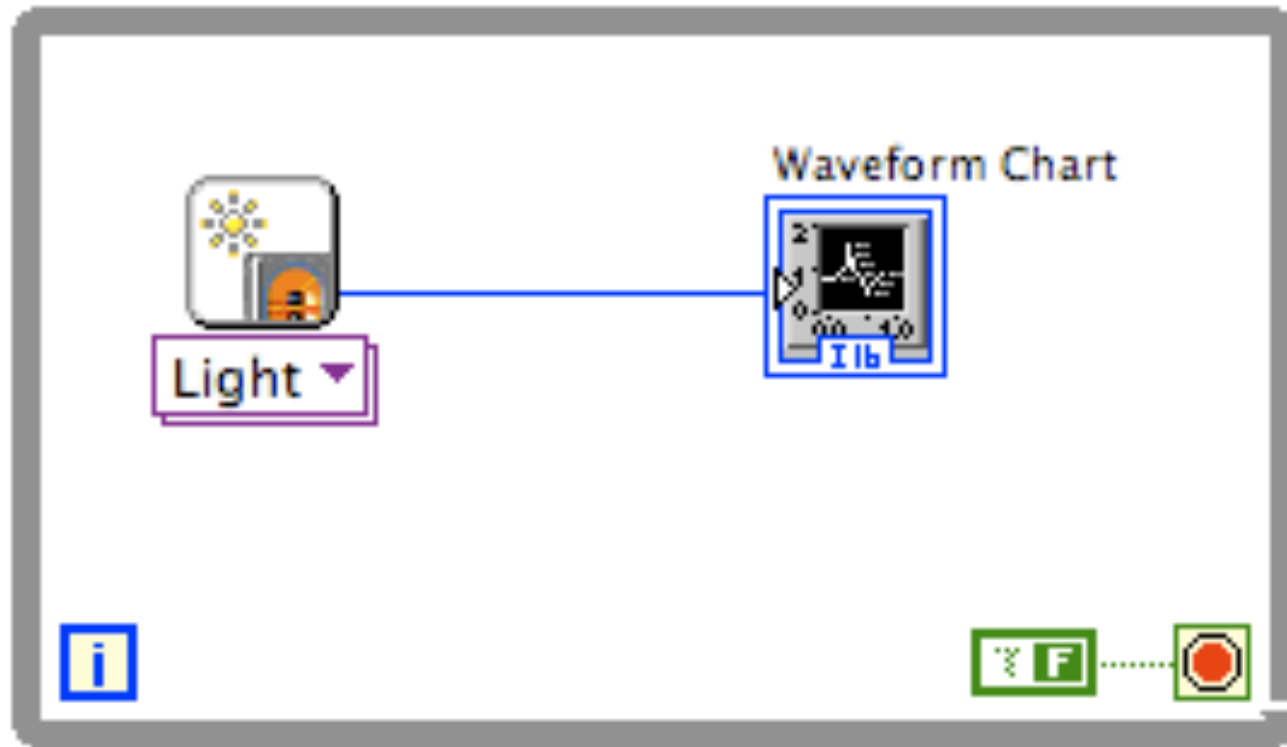


What does “dark” mean?





What does “dark” mean?



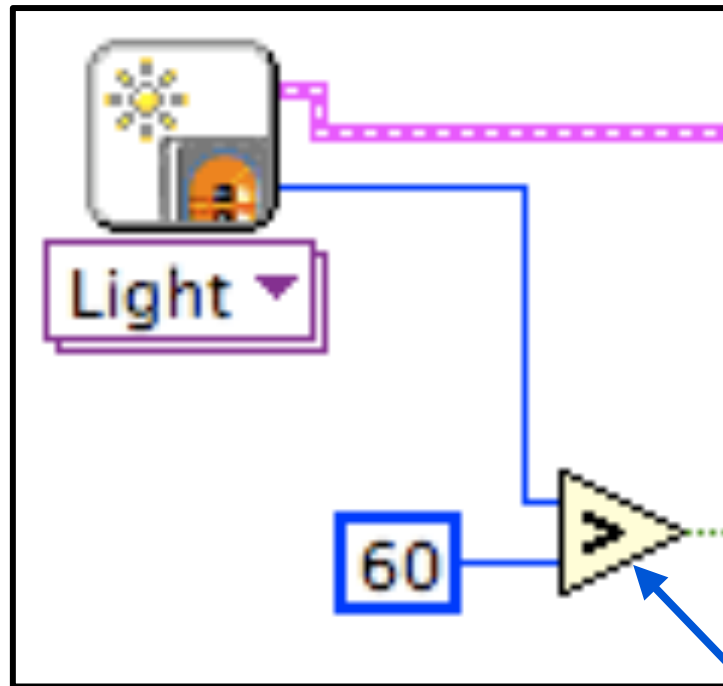


What does “dark” mean?

Lots of Noise
pick a threshold



Thresholding

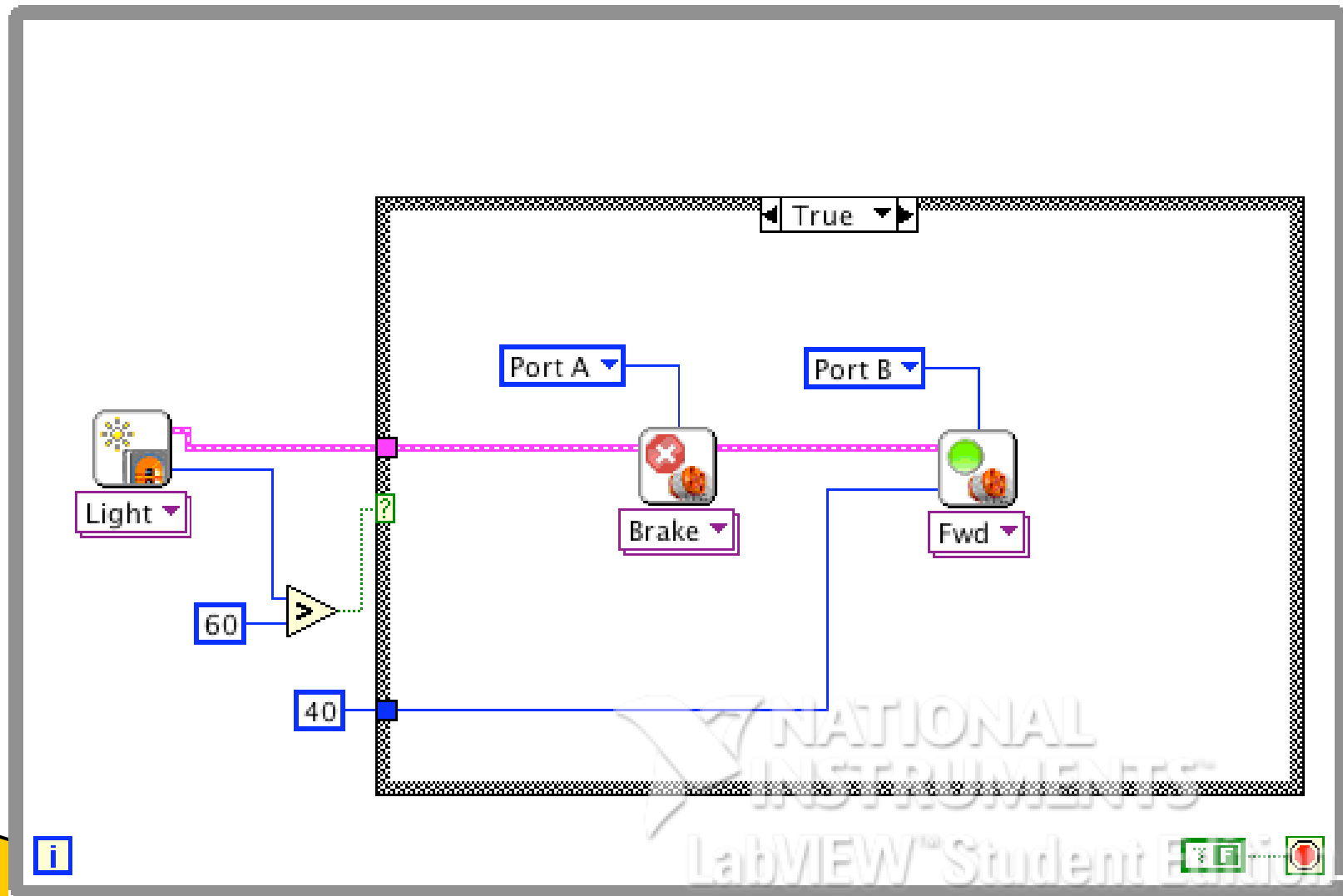


If the light is
greater than 60
Emit **true**

Greater than



Putting it all Together





Putting it all Together

