1) Start

2) Initialize GPIO Pins
   a) Set up GPIO pins for cable harness connectors as inputs
   b) Set up GPIO pin for LED as an output
3) Define the Correct Pinning Sequence
   a) Define the expected pinning sequence ([1, 2, 3, 4, 5, 6])
4) Iteration: Pin Detection
   a) Initialize an empty list to store the detected pin values
   b) Iterate through the connector pins
   c) Read the input value of each connector pin
   d) Store the input value in the list
5) Check for All Connectors Connected
   a) If any connector pin has no input value:
      i) Turn off the LED and end the algorithm
6) Check for Pin Conflicts
   a) If there are duplicate values in the list:
      i) Clear the list and go back to the Pin Detection Iteration (Step 4)
   b) Else:
      i) Proceed to the next step
7) Sort the Detected Pin Values
   a) Sort the list of detected pin values in ascending order
8) Compare with the Correct Pinning Sequence
   a) If the sorted list of detected pin values matches the expected pinning sequence:
      i) Turn on the LED
   b) Else:
      i) Turn off the LED
9) End