Lab #09 PLC & HMI HMI Screens JD Jones

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Point Value = \_\_\_\_\_\_/90 points

In this lab you will be creating screens and numeric inputs and outputs.

1. Establish communication with the HMI and PLC.
   1. RS Linx
   2. Adding the PLC to the HMI program for communication.
2. You need to create a new HMI program and have at least 3 screens.
   1. Main screen giving navigation requests to …
      1. Timer screen
      2. Counter screen
   2. On the main screen have an image of a timer for the timer screen and an image of a counter for the counter screen as part of the navigation buttons.
3. Create at least 1 numeric entry with limits.
   1. Change the color, text and shape.
   2. Have the limits be 3 to 7.
   3. Use math to make the timer preset value be between 3000 and 7000.
   4. Place this value in the PLC for the preset of the timer.
   5. Push a button on the HMI and wait the length of the timer to turn on a light on the HMI.
4. Create a numeric entry for the counter preset value between 1 and 6.
   1. Press a button on the I/O panel (the one wired directly to the PLC) and have a HMI light turn on.
5. Create a numeric display showing the current accumulated value of the counter.
6. Create a button either on the HMI or the I/O panel to reset the counter.
7. Save and transfer the file to the HMI.
8. Run the program on the HMI.

Points for:

1. Establish communication with the HMI and PLC.
   1. RS Linx **5 points**
   2. Adding the PLC to the HMI program for communication. **5 points**
2. You need to create a new HMI program and have at least 3 screens. **10 points**
   1. Main screen giving navigation requests to …
      1. Timer screen
      2. Counter screen
   2. On the main screen have an image of a timer for the timer screen and an image of a counter for the counter screen as part of the navigation buttons. **10 points**
3. Create at least 1 numeric entry with limits. Total of **30 points**
   1. Change the color, text and shape.
   2. Have the limits be 3 to 7.
   3. Use math to make the timer preset value be between 3000 and 7000.
   4. Place this value in the PLC for the preset of the timer.
   5. Push a button on the HMI and wait the length of the timer to turn on a light on the HMI.
4. Create a numeric entry for the counter preset value between 1 and 6. **10 points**
   1. Press a button on the I/O panel (the one wired directly to the PLC) and have a HMI light turn on.
5. Create a numeric display showing the current accumulated value of the counter. **10 pts**
6. Save and transfer the file to the HMI. **5 pts**
7. Run the program on the HMI. **5 pts**

INSTRUCTOR’S INITIAL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_