

```

Filename:TROLLEY
{0} †Li st 6.
Send(Li st 6) .
{1, 4, 2, 2} †Li st 6.
Send(Li st 6) .
{1, 1, 4} †Li st 6.
Send(Li st 6) .
"# OF PTS PER SECOND" †I .
{3, I ü, 64, 1, 5, 10, 1, 0, 0, 0, 0, 2} †Li st 6.
"START TROLLEY" .
Send(Li st 6) »
Recei ve(Li st 1) .
Recei ve(Li st 2) .
Recei ve(Li st 3) .
S- Wi ndAut o.
S- Gph1 DrawOff .
S- Gph2 DrawOff .
S- Gph3 DrawOff .
S- Gph1 DrawOn, xyLi ne, Li st 1, Li st 3, 1, Dot, Bl ue .
DrawStat »
Cl rText .
Stop

```

### Setting up trigger

**Before running the program you need to set up a beam of light that triggers the data logger to begin recording when the trolley crosses it.**

**The program is set to trigger the DAS when the light reading from the light probe drops and causes the resistance reading to rise above 10kohm. To check that the light probe is set up correctly, follow the steps below.**

**Enter the multimeter mode (press Mode).**

**Press DataLog to change units. Stop when kohm appears on the right side of display.**

**If the reading is above 10kohm you will need a brighter light source. A torch should be sufficient. Once you have a reading below 10kohm move the trolley so that it cuts the light beam. The reading should rise above 10kohm.**

**You are now ready to run the program “trolley”**

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Filename:PHCAL
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G- Connect .
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FuncOn .
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Y=Type .
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CoordOn.
GridOff.
AxesOff.
LabelOff.
ClrText.
ClrGraph.
S-WindMan.
S-Gph1 DrawOff.
S-Gph2 DrawOff.
S-Gph3 DrawOff.
Cls.
ClrList.
Text 41, 30, "BUFFER SOLUTIONS".
Text 57, 15, "PRESS [EXE] TO CONTINUE" »
AxesOn.
"PLEASE CHECK THE".
"EQUIPMENT SET UP".
"BEFORE CONTINUING. ".
Locate 16, 7, "[EXE]" »
ClrText.
"BE SURE TO".
"CAREFULLY FOLLOW".
"THE SCREEN".
"INSTRUCTIONS. ".
Locate 16, 7, "[EXE]" »
ClrText.
"YOU ARE NOW".
"READY TO BEGIN".
"THE CALIBRATION. ".
Locate 16, 7, "[EXE]" »
ClrText.
{1, 0} ‡List 6.
Send(List 6).
{1, 1, 1} ‡List 6.
Send(List 6).
{0, 0, 0} ‡List 1.
For 1‡I To 3.
ClrText.
"RINSE ELECTRODE".
"AND PLACE IN THE".
If I=1: Then "PH 4.2 BUFFER SOLUTION. ": IfEnd.
If I=2: Then "PH 7 BUFFER SOLUTION. ": IfEnd.
If I=3: Then "PH 9 BUFFER".

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" SOLUTION. ": IfEnd.
Locate 16, 7, "[ EXE] " »
ClrText.
" WHEN EA- 100 DISPLAY" .
" STABILIZES, " .
" PRESS [ TRIGGER] . " .
{ 3, . 25, 1, 0 } †List 6.
Send(List 6) .
Locate 16, 7, "[ EXE] " »
Receive(A): A †List 1[I] .
Next.
{ 4. 2, 7, 9 } †List 2.
LinearReg List 1, List 2.
{ 9, 1, 1, €, • } †List 6.
Send(List 6) .
{ 3, 1, •1 } †List 6.
Send(List 6) »
ClrText.
" THE CALIBRATION" .
" IS COMPLETE. " .
" A=": €»
" B=": •»
" Ko=": •»
" K1=": €»
Locate 16, 7, "[ EXE] " »
ClrText.
" YOU ARE READY" .
" TO BEGIN THE" .
" EXPERIMENT. " .
Locate 16, 7, "[ EXE]" »

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**Filename:PH**

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ClrText.
ClrList.
{ 1, 0 } †List 6.
Send(List 6) .
{ 1, 1, 1 } †List 6.
Send(List 6) .
{ 4, 1, 1, 0, 13. 124, •3. 834 } †List 6.
Send(List 6) .
" Rinse electrode" .
" in distilled water" .
" Place in solution" .

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Locate 16, 7, "[EXE]" »
ClrText.
"When display ".
"stabilizes".
"approx 60 sec".
"press trigger".
Locate 16, 7, "[EXE]".
{3, 1, 1, 0, 1} †List 6.
Send(List 6) »
ClrText.
Receive(List 5).
"The pH is".
Locate 1, 3, List 5[1]
```