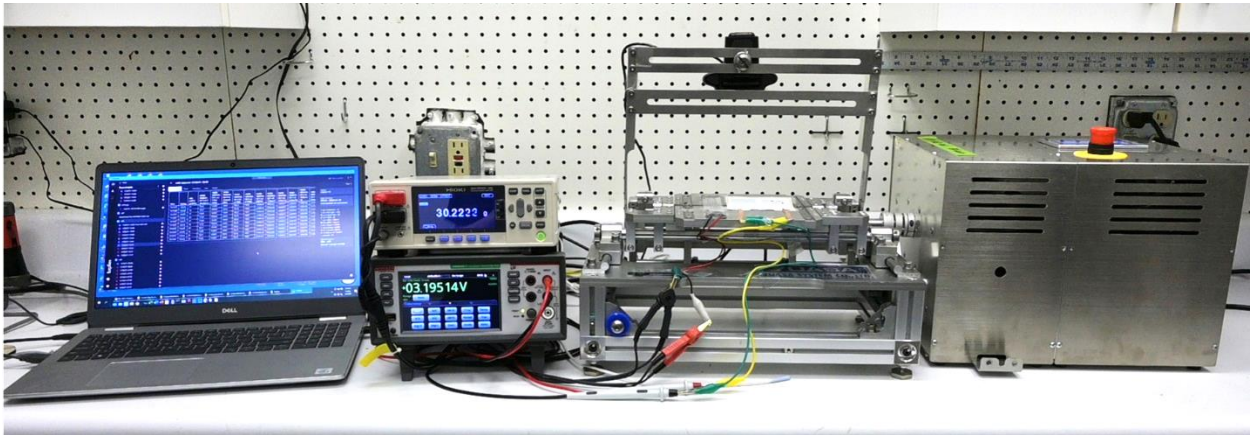


Flexdata Quick-Start Guide

The Flexdata Quick-Start Guide has been written to supplement the [Flexdata Setup Video](#). The Quick-Start Guide is brief but contains essential information to run the first Flexdata test. See the [Video Link](#) for more detailed information, and for more information on designing test algorithms.



First Time Installation

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Flexdata Equipment Compatibility

Yuasa Motors

DMLHP
DR11MR
DMLHB
DLDM111LH
TCDM111LH
Motors with Ethernet Port

Yuasa Test Jigs

CS
FS
ST
P150
FT
TW
FR
and many others

Meters

Hioki RM3545-2
Hioki Terminal Box
Yuasa Terminal Box
Keithley DAQ6510
7700 Multiplexers
Keithley DMM6500
Keithley 2100
Keithley 2110

First Time Installation

1. Download and Install on the Laptop

1.1. NI-VISA Setup File [Video Link 4:15](#)

- 1.1.1. Go to <https://www.ni.com/downloads> using your Browser.
- 1.1.2. Search for "NI-VISA".
- 1.1.3. Download the setup file to your "Downloads" directory (or directory of your choice).
- 1.1.4. Run file "ni-visa_20.0_online_repack3.exe" in your "Downloads" directory (downloaded version might have different filename).
- 1.1.5. Accept default setup, accept license terms, and continue the installation until it is complete.

1.2. Flexdata Setup File [Video Link 5:09](#)

- 1.2.1. Go to <https://flexdata.bayflextechnologies.com/downloads> using your Browser.
- 1.2.2. Click on "Download".
- 1.2.3. Download the setup file to your "Downloads" directory (or directory of your choice).
- 1.2.4. Run file "Flexdata Setup.exe" in your "Downloads" directory (downloaded version might have different filename).
- 1.2.5. At the end you will be given an option to open Flexdata, decline the option. You will open Flexdata later.

2. Set IP Addresses and Subnet Masks [Video Link 6:02](#)

2.1. Motor Units

- 2.1.1. "DM" Motor Unit default IP Address is 192.168.0.1 and can be changed. The default Subnet Mask is 255.255.255.0.
- 2.1.2. To run "DM" on LAN, change IP Address and Subnet Mask to match LAN (e.g., if LAN is 192.168.2.1, perhaps use 192.168.2.151 and higher for Motor Units). Use the settings page on the Motor Unit Touch Panel to change the IP Address.
- 2.1.3. "DR" Motor Unit IP Address is 192.168.10.1. It cannot be changed and it cannot be run on a LAN.

2.2. Laptop

- 2.2.1. With "DM" Motor Units on a LAN, perhaps use DHCP for Laptop. Laptop **must** be able to connect to the Internet for the Cloud.
- 2.2.2. With "DM" Motor Units using a single RJ-45 Cable between Motor Unit and Laptop, set Laptop IP Address to match the Motor Unit default IP Address

192.168.0.1 (perhaps use 192.168.0.10). Laptop **must** have WiFi to connect to the Internet for the Cloud.

- 2.2.3. With "DR" Motor Units, you must use a single RJ-45 Cable between the Motor Unit and the Laptop. Change the Laptop IP Address to match the Motor Unit default IP Address 192.168.10.1 (perhaps use 192.168.10.10). Laptop **must** have WiFi to connect to the Internet for the Cloud.

3. Connect Motor Units and Laptop to the LAN with RJ-45 Cables

- 3.1.1. If using single RJ-45 Cable, connect Motor Unit directly to the Laptop. Laptop **must** have WiFi to connect to the Internet for the Cloud.

4. Connect Meters to the Laptop with USB Cables

5. Connect Cameras to the Laptop with USB Cables

6. Run Flexdata App

- 6.1.1. Installation should have put a "Flexdata Link" on your Laptop's desktop.
- 6.1.2. Double-click on the Flexdata Link.
- 6.1.3. You may be required to Login. If you have a Flexdata Cloud account, simply do a Login. If you do not have a Flexdata Cloud account, you can Register by providing a Login ID and Password.

7. Set up Equipment in Flexdata - Motors, Meters, Cameras [*Video Link 11:33*](#)

7.1. Install Motors in Flexdata

- 7.1.1. Click on Equipment page.
- 7.1.2. Click on DM or DR Motor Unit page.
- 7.1.3. Click on "add..."
- 7.1.4. Type in Motor Unit's IP Address.
- 7.1.5. Click on Connect.
- 7.1.6. Set up Template as desired.
- 7.1.7. Install other Motor Units as desired.

7.2. Install Meters in Flexdata

- 7.2.1. Click on Equipment page.
- 7.2.2. Click on Keithley page or Hioki page.
- 7.2.3. Click on "add..."
- 7.2.4. Flexdata will find the meters.
- 7.2.5. Select the desired Serial Number.
- 7.2.6. Click on Connect.
- 7.2.7. Set up Template as desired.

7.2.8. Install other Meters as desired.

7.3. Install Cameras in Flexdata

7.3.1. Click on Equipment page.

7.3.2. Click on Camera page.

7.3.3. Flexdata will find the cameras.

7.3.4. Select the desired camera.

7.3.5. Click on Connect.

7.3.6. Set up Template as desired.

7.3.7. Install other Cameras as desired.

8. Initial Test Setup

8.1. Design Algorithm [*Video Link 21:20*](#)

8.1.1. This Quick-Start Guide will help you set up a simple experiment, you will need to design your own more complex experiments. For other suggestions, see:

[*Video Link 29:11*](#) [*Video Link 39:11*](#) [*Video Link 45:36*](#)

8.1.2. Click on Experiment page.

8.1.3. Click on "Create new experiment".

8.1.4. Click on "Templates" tab.

8.1.5. Select a Template (typically the first of the two suggestions).

8.1.6. Select other Blocks as desired from "Device" tab (to add second meter, for example)

8.1.7. Move the Blocks into a single stack, in the proper order, for the desired experiment.

8.2. Set Blocks for desired equipment and templates

8.2.1. Select a Motor Unit with the first Device drop-down arrow and the preferred Motor Unit Template from the second drop-down arrow on the same Device block. The Algorithm might suggest a device and template, change as desired.

8.2.2. Select Meters and Meter Templates with other Device drop-down arrows.

8.2.3. Select Cameras and Camera Templates with other Device drop-down arrows.

8.2.4. Add Device blocks as needed. Move the Device block into the desired location in the Experiment Algorithm.

8.3. Set "repeat" => Number of Measurements during Test

8.3.1. Click on the number inside the Repeat Block to set the number of measurements to be made during the test.

8.4. Select Motor to "move" during Test

8.4.1. Click on the drop down list to select the motor to be used.

8.5. Set Motor "speed"

8.5.1. Click on the speed number to set the motor speed to be used in the experiment.

8.6. Set "position" => Cycles per Measurement Period

8.6.1. Click on the position number to set the number of cycles per measurement.

8.7. Save the Experiment, type in Title for the Experiment

8.7.1. A title is required, if you leave this page before saving, the Algorithm will be lost.

8.8. Run First Test [*Video Link 24:43*](#)

8.8.1. Click on "Execute".

8.8.2. If there are errors in the Algorithm, you will receive a notice.

8.9. Monitor in Cloud [*Video Link 27:35*](#) [*Video Link 42:16*](#)

8.9.1. Go to "<https://flexdata.bayflextechnologies.com/experiments>" using your Browser. This is the Bayflex Solutions Cloud.

8.9.2. The Chrome Browser was used during the design of Flexdata.

8.9.3. MS Edge Browser has been tested and found to work properly on the Flexdata Cloud.

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