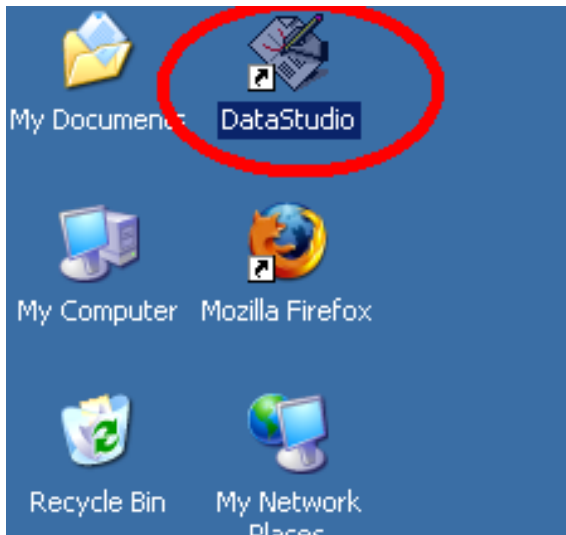


DataStudio setup for rotation with constant acceleration

Physics 23 Lab 05

Missouri University of Science and Technology

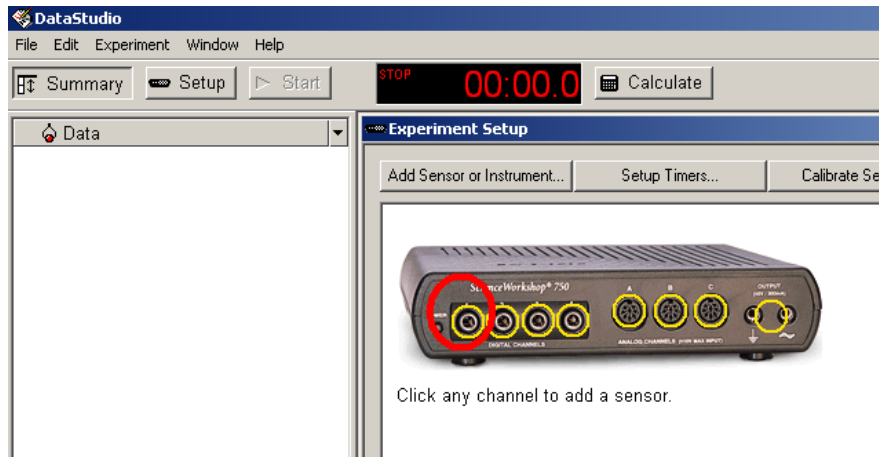
DataStudio icon on desktop



Create Experiment

The screenshot shows the DataStudio software interface. At the top, there is a menu bar with 'File', 'Edit', 'Experiment', 'Window', and 'Help'. Below the menu bar is a toolbar with buttons for 'Summary', 'Setup', 'Start', a digital display showing 'STOP 00:00.0', and 'Calculate'. On the left side, there are two panels: 'Data' and 'Displays'. The main area is currently empty, displaying a 'Welcome to DataStudio' dialog box. The dialog box has a title bar and a close button. It contains a cartoon atom icon and the text 'How would you like to use DataStudio?'. There are four options, each with an icon and a label: 'Open Activity' (with a book icon), 'Create Experiment' (with a book, pencil, and lightbulb icon, circled in red), 'Enter Data' (with a clipboard icon), and 'Graph Equation' (with a graph icon showing the equation $y = mx + b$). At the bottom of the dialog box, there is a checkbox labeled 'Show each time this program starts.' which is checked.

Left-click input 1



The screenshot displays the DataStudio software interface. At the top, the title bar reads "DataStudio" with a menu bar containing "File", "Edit", "Experiment", "Window", and "Help". Below the menu bar is a toolbar with buttons for "Summary", "Setup", "Start", a digital display showing "STOP 00:00.0", and "Calculate". The main window is divided into two panes. The left pane is labeled "Data" and is currently empty. The right pane is titled "Experiment Setup" and contains three buttons: "Add Sensor or Instrument...", "Setup Timers...", and "Calibrate Se...". Below these buttons is an image of a ScienceWorkshop 750 device. The device has several ports: a "DIGITAL CHANNELS" section with four ports (the first is circled in red), an "ANALOG CHANNELS (10M MAX INPUT)" section with three ports labeled A, B, and C, and an "OUTPUT (VOLT / AMPERE)" section with two ports. Below the device image, the text reads "Click any channel to add a sensor."

Add Rotational Dynamics Apparatus > OK

The screenshot displays the 'Experiment Setup' window for a ScienceWorkshop 750 interface. At the top, there are four buttons: 'Add Sensor or Instrument...', 'Setup Timers...', 'Calibrate Sensors...', and 'Sampling Options...'. Below these buttons is an image of the ScienceWorkshop 750 hardware unit, which has three digital channels labeled A, B, and C. A dialog box titled 'Choose sensor or instrument...' is open, showing a list of available sensors. The 'Rotational Dynamics Apparatus' option is highlighted with a red circle. The list includes: Drop Counter, Flow Rate Sensor, Four-To-One Adapter, Free Fall Adapter, Geiger Counter, Laser Switch, Motion Sensor, Photogate, Photogate & Picket Fence, Photogate and Pendulum, Rotaru Motion Sensor, Rotational Dynamics Apparatus, Smart Pulley, and Time Of Flight Accessory. The 'OK' and 'Cancel' buttons are visible at the bottom of the dialog box.

Experiment Setup

Add Sensor or Instrument... Setup Timers... Calibrate Sensors... Sampling Options...

ScienceWorkshop® 750

Click any channel to:

Choose sensor or instrument...


ScienceWorkshop Digital Sensors

- Drop Counter
- Flow Rate Sensor
- Four-To-One Adapter
- Free Fall Adapter
- Geiger Counter
- Laser Switch
- Motion Sensor
- Photogate
- Photogate & Picket Fence
- Photogate and Pendulum
- Rotaru Motion Sensor
- Rotational Dynamics Apparatus**
- Smart Pulley
- Time Of Flight Accessory

OK Cancel

Check Angular Velocity only

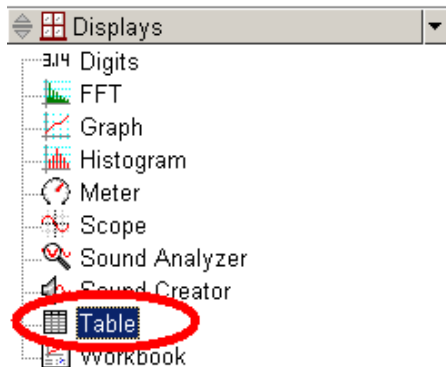
Add Sensor or Instrument... Setup Timers... Calibrate Sensors...



The image shows the ScienceWorkshop 750 interface. At the top, there are three buttons: "Add Sensor or Instrument...", "Setup Timers...", and "Calibrate Sensors...". Below these is a photograph of the ScienceWorkshop 750 device, which has four digital channels (1-4), three analog channels (A, B, C), and two output ports. A small icon of a rotating disk is shown below the device. The main panel is titled "Rotational Dynamics Apparatus" and has two tabs: "Measurements" and "Constants". Under "Measurements", there is a table with columns for "Visibility", "Name", and "Unit of Measure".

Visibility	Name	Unit of Measure
<input type="checkbox"/>	Counter, Ch1	Counts/Sample
<input type="checkbox"/>	Angular Position, Ch 1	deg
<input checked="" type="checkbox"/>	Angular Velocity, Ch 1	deg/s
<input type="checkbox"/>	Angular Acceleration, Ch 1	deg/s/s

double click Table



visibility, Name

- Counter, Ch1
- Angular Position, Ch 1
- Angular Velocity, Ch 1
- Angular Acceleration, Ch 1