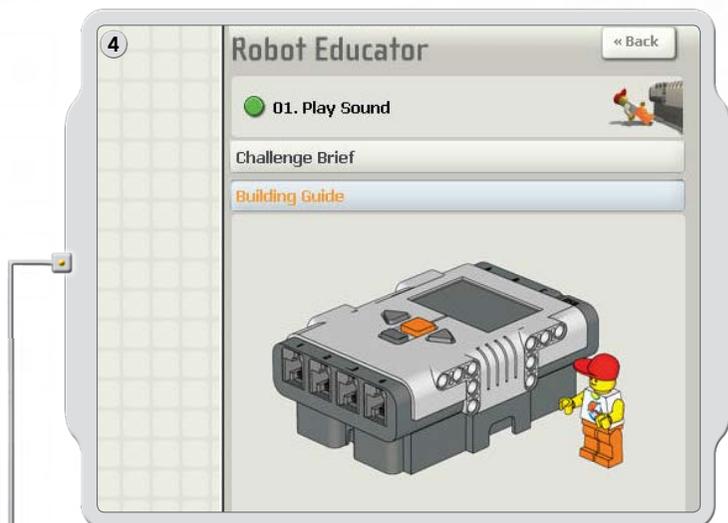
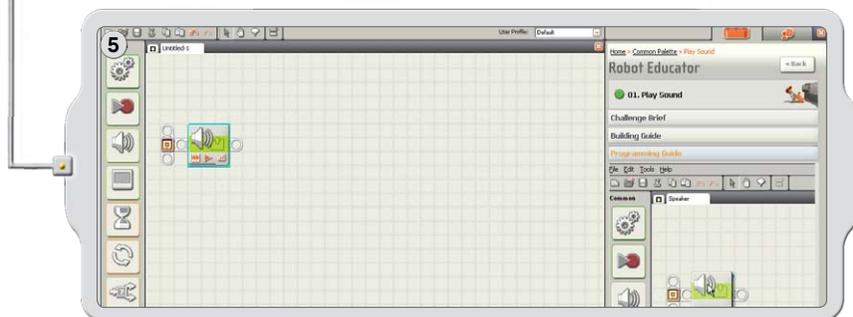


The Robot Educator

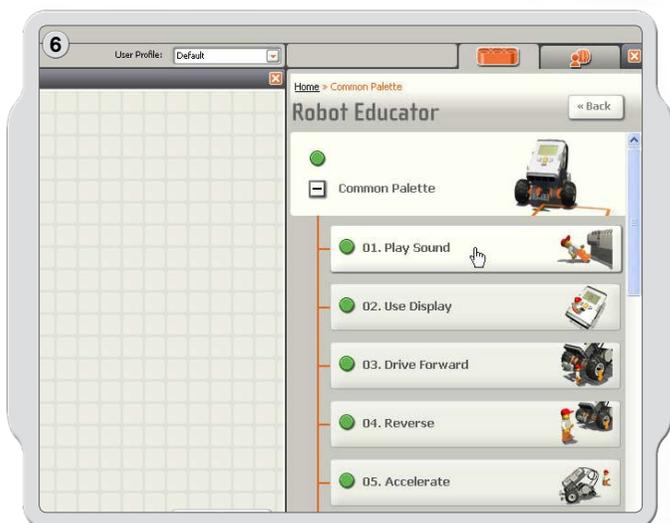


Follow the building instructions to build the Robot Educator model.



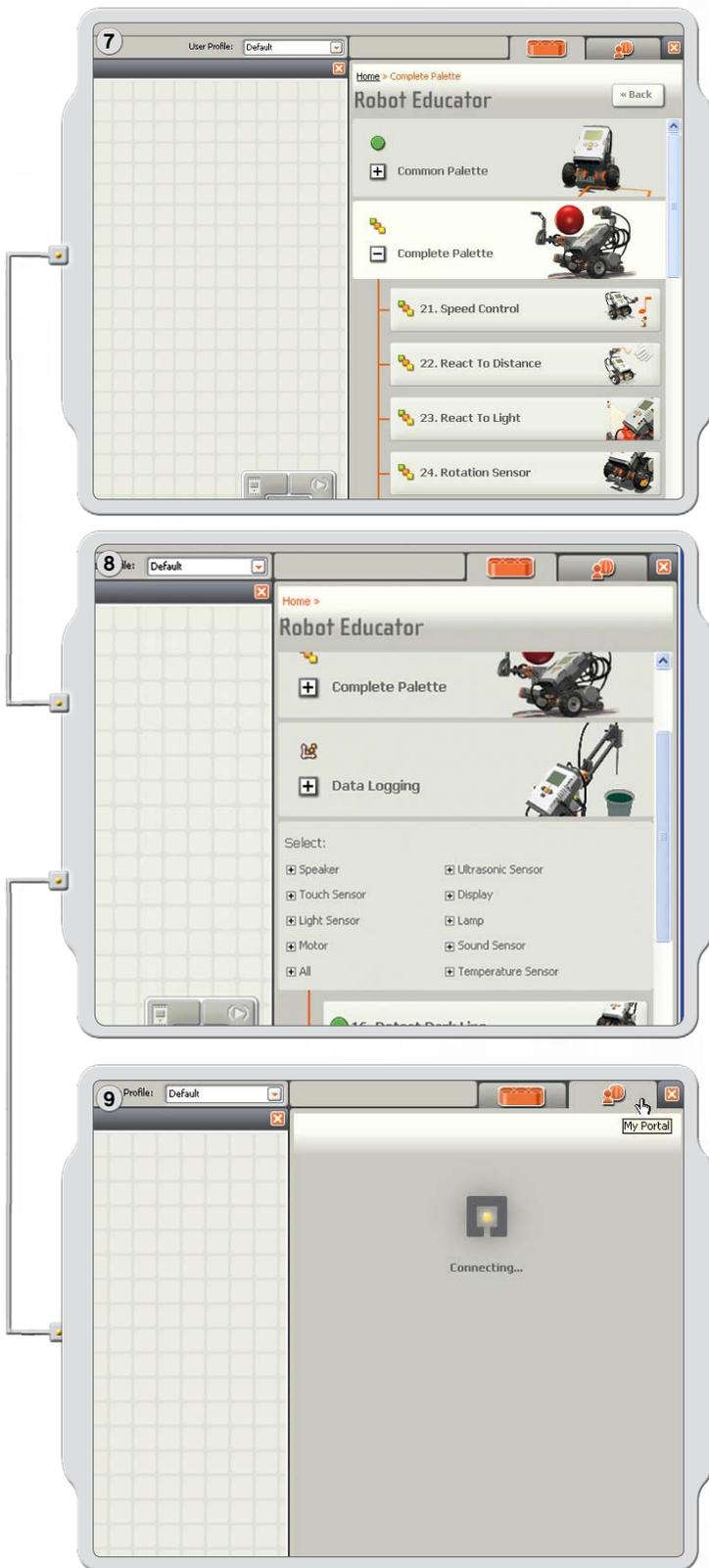
Over in the workspace, drag and drop the blocks to match the program shown in the Programming Guide.

Download the sample program to your robot and see how the robot responds!



In the Common palette are many program examples using the seven Common blocks.

The Robot Educator

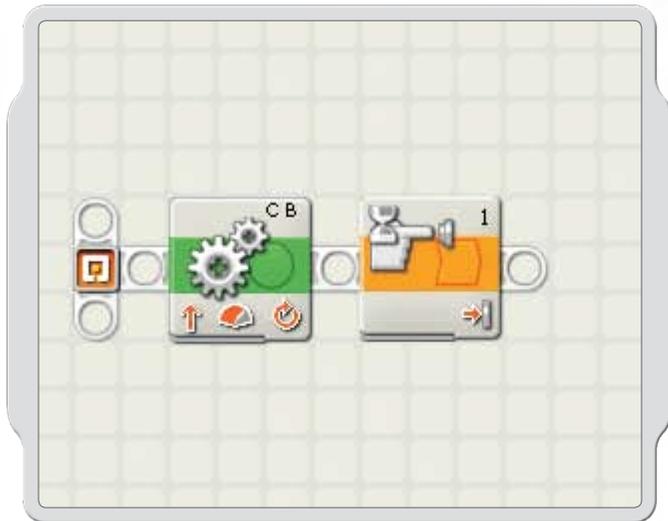


A series of examples show how the Complete palette icons can be used to program a model.

To see a list of examples for specific NXT Technology, click an item under Select.

Go to My Portal to find useful information and updates related to the LEGO® MINDSTORMS® Education NXT Software.

Programming Palette



The programming palettes contain all of the programming blocks that you need to create programs. Each programming block includes instructions the NXT can interpret. You can combine the blocks to create a program.



When you are done creating a program, you download it to the NXT. Remember to turn on and connect your NXT before downloading a program.

Programming Palette

Common Palette



To simplify its use, the programming palette has been divided into three different palette groupings: the Common palette, the Complete palette and the Custom palette (containing blocks that you create or download from the web).

The Common palette is recommended as a starting point.



Move block

The Move block makes your robot Motors move or Lamps turn on.



Record/Play block

The Record/Play block enables you to program the robot with physical movement - and later play back the movement elsewhere in the program.



Wait block

The Wait block makes your robot wait for sensor input, such as a sound or a time interval.



Sound block

The Sound block enables your robot to make sounds, including pre-recorded words.



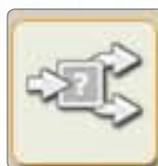
Loop block

Use the Loop block if you want your robot to continue to do the same things again and again, such as moving forward and backward until a Touch Sensor is pressed.



Display block

The Display block enables you to control the display on the NXT. You can type, show icons or even draw through your program.



Switch block

The Switch block enables the robot to make its own decisions, such as going left when it hears a loud sound and turning right when it hears a soft sound.

Programming Palette

Complete Palette



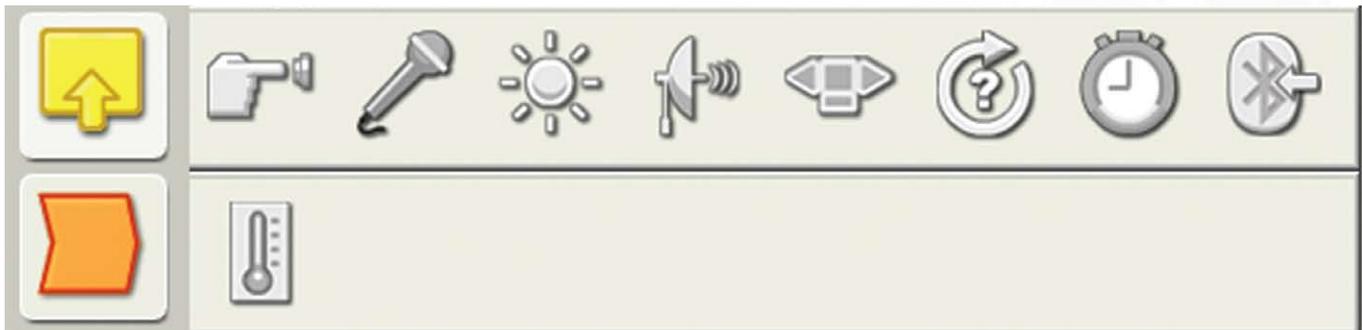
Common blocks

The Common blocks are the same blocks available in the Common palette.



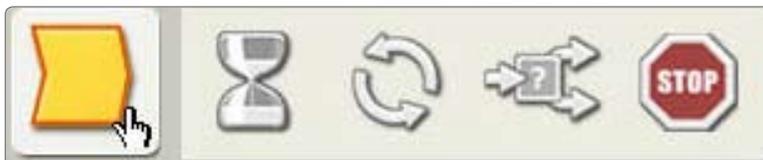
Action blocks

The Action blocks allow you to control specific types of behavior related to various output devices: the Interactive Servo Motor, NXT Sounds, NXT Display, Bluetooth (Send), and Lamps.



Sensor blocks

Use these blocks in combination with the sensors on your robot to control behavior. The blocks correspond to Touch, Sound, Light and Ultrasonic Sensors; NXT buttons; Rotation of the Interactive Servo Motors, Timers, Bluetooth (Receive), and optional Temperature Sensors.



Flow blocks

These blocks allow you to create more complex behaviors. Blocks include control for Repeat, Wait For and Variable conditions; blocks to Stop behavior or logical flow in a program; and Decision blocks to program responses to specific sensor conditions.

Programming Palette

Complete Palette



Data blocks

Set up Boolean logic, Math, Compare, Range, Random conditions, Variable and Constant blocks.



Advanced blocks

Use these blocks to convert data to text, add text, control the sleep function on the NXT, save files on the NXT, calibrate sensors, reset motors, start and stop data logging, and connect with Bluetooth.

Custom Palette



My Blocks

Using the My Blocks, you can save a program as one block that you can then reuse in other programs.



Web Downloads

Using the Web Downloads block, you can save programs that you download from your friends' e-mail or from the Portal or from a website such as www.MINDSTORMSeducation.com

The Configuration Panel

Each programming block has a configuration panel in which you can adjust the settings of the selected block. When a block is selected in the work area, its configuration panel becomes visible and active at the bottom of the screen.

By changing the parameters on each configuration panel, you can change how a particular block will behave. For example, to make your robot move faster, you can change the Power [Power] property on the Move block configuration panel.

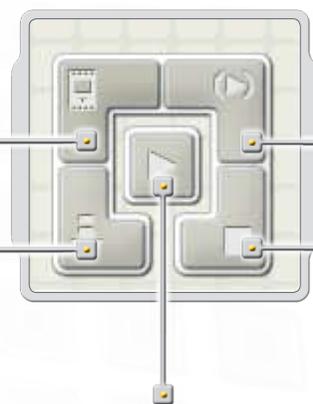


The Controller

The five buttons on the Controller communicate from your computer to the NXT brick:

The NXT window button gives you access to the NXT memory and communication settings.

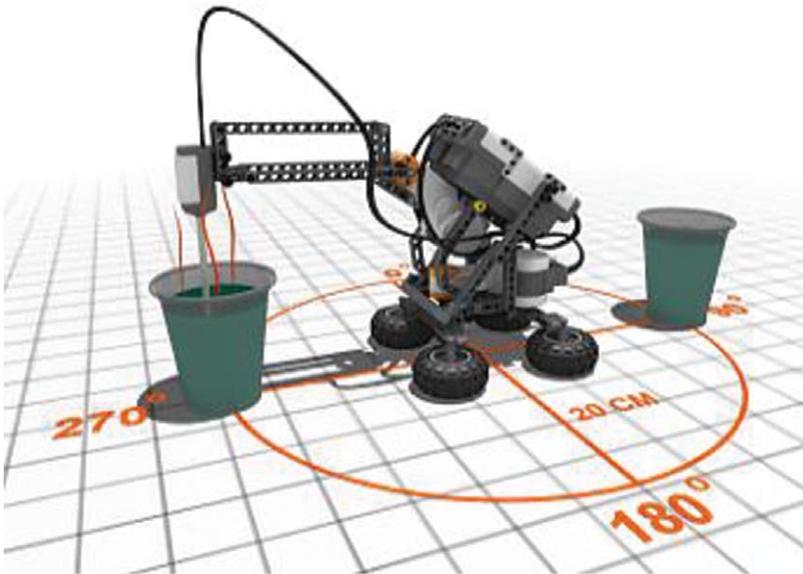
The Download button downloads the program to the NXT. You can then run the program from the NXT.



The Download and run selected button downloads and runs just a pieces of your program code (e.g. a single block or just a few blocks). You will then be able to see how the small sequence of your program performs on the NXT without having to download the whole program.

The Download and run button downloads a program to the NXT and then starts running the program.

The Stop button stops a running program.



Data Logging involves collecting, storing and analyzing data. Data Logging systems typically monitor an event or process over a period of time using sensors linked to a computer or device, such as the NXT brick.

Temperature change, range and light intensity are just three examples of the type of information a data logging system can collect. Common examples of data loggers include weather stations and black box recorders in aircraft.

The LEGO® MINDSTORMS® Data Logging software functions with all sensors included in the 9797 LEGO MINDSTORMS Education Base Set (see page 5, Overview), as well as the optional Temperature Sensor and a wide range of third party sensors.

Data logging typically involves three stages:

- Prediction – an attempt to determine an outcome or result prior to a process or event taking place
- Collection – collection of data during the experiment or event
- Analysis – examination of the collected data, including comparison with the predicted outcome

Data logging in the classroom

Advantages of using data logging in experiments:

- Increased accuracy
- Measurements over very short or very long periods of time
- Automated collection – no human intervention required
- Automated creation of data displays, graphs, diagrams, etc.
- Data can be easily saved, appended, and exported

Data logging on the MINDSTORMS NXT

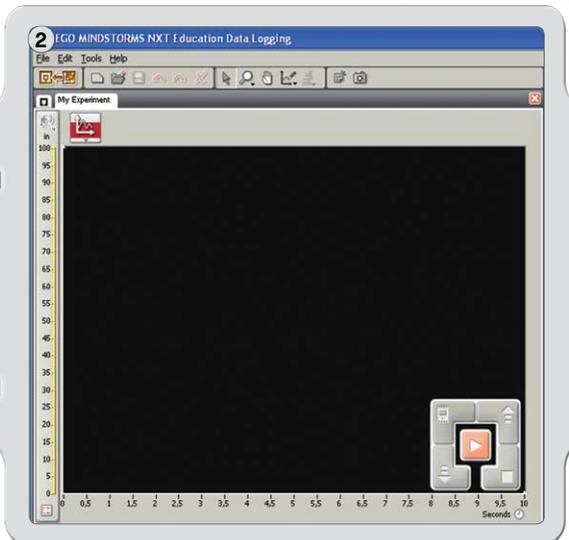
Data logging is ideally suited to the NXT brick and the MINDSTORMS NXT software. Using the NXT brick and its software, data logging allows you to use the NXT brick's sensors to carry out experiments in many ways, including remotely on the NXT brick or when connected to your computer.

How to Start

The Data Logging software is easily accessible from the desktop using the Data Logging icon or directly from the NXT programming window.



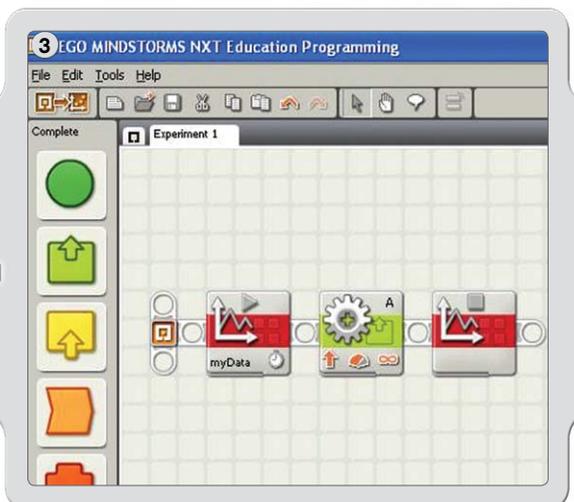
Start the software on your PC or Mac by double-clicking the program icon.



The Data Logging window

You can create and carry out experiments directly in the Data Logging window. To carry out an experiment, configure your experiment and click on Download and run on the Data Logging Controller.

The NXT Programming window must remain open in the background when using the Data Logging software. It is possible to run the NXT Programming window without opening the NXT Data Logging window.



Data Logging in the NXT programming window

You can also program a NXT robot to log data. Use the two blocks in the Advanced palette (see page 56, Programming Palette) to start and stop data logging on the NXT robot and view a Graph of the data logging while it happens, or just leave the log file on the NXT brick for later analysis.

Simply click on the Toggle button in the Tool Bar in the NXT programming window to open the Data Logging window.

A quick overview

1. Robot Educator
2. My Portal
3. Tool bar
4. Graph
5. Little Help window
6. Y-axis
7. X-axis
8. Dataset Table
9. Experiment configuration
10. Data Logging Controller

The screenshot shows the LEGO MINDSTORMS NXT Education Data Logging software interface. The window title is "LEGO MINDSTORMS NXT Education Data Logging". The interface is divided into several sections:

- 1. Robot Educator:** The main workspace on the right, showing a "Home" button and a "Robot Educator" section with images of the robot and various sensors.
- 2. My Portal:** The top right area, containing navigation buttons like "Home" and "Data Logging".
- 3. Tool bar:** A horizontal bar below the menu (File, Edit, Tools, Help) containing various icons for file operations and data management.
- 4. Graph:** A central plot area showing a line graph with a yellow dashed line. The Y-axis is labeled "In" and ranges from 0 to 100. The X-axis is labeled "Seconds" and ranges from 0 to 10.
- 5. Little Help window:** A small window at the bottom right titled "Need help?" with a question mark icon and a "More help" link.
- 6. Y-axis:** The vertical axis of the graph, labeled "In", with tick marks from 0 to 100.
- 7. X-axis:** The horizontal axis of the graph, labeled "Seconds", with tick marks from 0 to 10.
- 8. Dataset Table:** A table at the bottom left showing data points. The first row is highlighted in yellow and contains the following values: 8,60, 8,80, 9,00, 9,20, 9,40, 9,60, 9,80, 10,00. The second row contains: 29,09, 29,09, 29,09, 29,09, 29,09, 29,09, 28,85, 28,85.
- 9. Experiment configuration:** A dialog box in the center-left titled "Experiment Configuration" with fields for Name, Duration (10 Seconds), Rate (5 Samples per Second), and sensor selection (Ultrasound Sensor).
- 10. Data Logging Controller:** A small control panel on the right side of the graph area, containing a play button and a stop button.

Software User Interface

1

Robot Educator

Here you can find special Data Logging building and programming instructions using the three NXT Data Logging models.

2

My Portal

Here you can access www.MINDSTORMSeducation.com for tools, downloads, and information.

3

The tool bar

The tool bar features Predictions Tools, Analysis Tools and other tools to help you further analyze your results.

4

Graph

The Graph is the visual representation of the log file. Create predictions, carry out experiments, and then analyze your results directly on the Graph.

5

Little Help Window

Get help tips and pointers if needed or be guided to a more comprehensive Help library.

6

Y-axis

The y-axis displays a sensor's unit of measurement. The unit of measurement varies from sensor to sensor and can vary from country to country. You can create multiple y-axes – so each sensor can have its own y-axis on the Graph.

7

X-axis

The x-axis always displays the duration of an experiment.

8

Dataset Table

The Dataset Table contains prediction and sensor values.

9

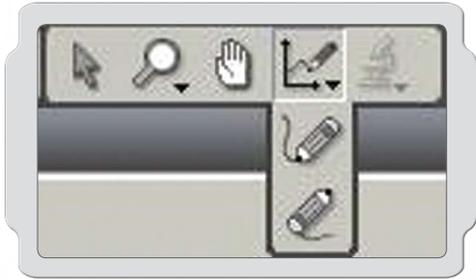
Experiment Configuration

Each experiment has a configuration panel that lets you customize the number and type of sensors, as well as duration and sample rate.

10

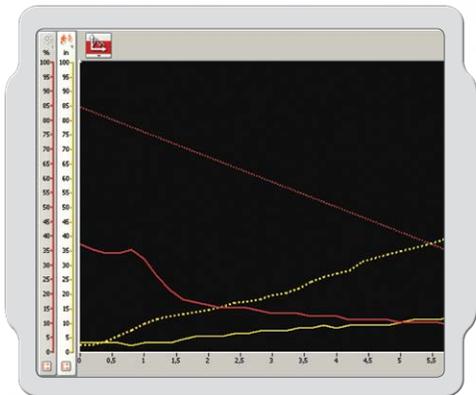
Data Logging Controller

The Data Logging Controller allows you to communicate with the NXT brick. The Upload button allows you to move log files from your NXT to your computer.



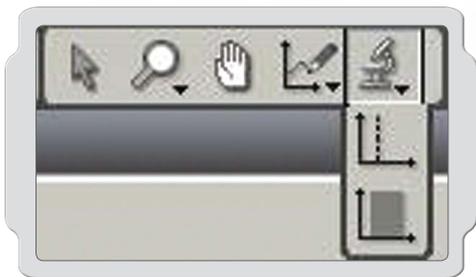
Prediction Tools

Make predictions of what will happen when the experiment is carried out using Prediction Tools. Use the pencil to draw a prediction or use a formula prediction to create a straight line.



Data Collection

Experiment data is collected on the NXT brick when you click Download and run. The data is saved in a log file and displayed on the Graph and in the Dataset Table.



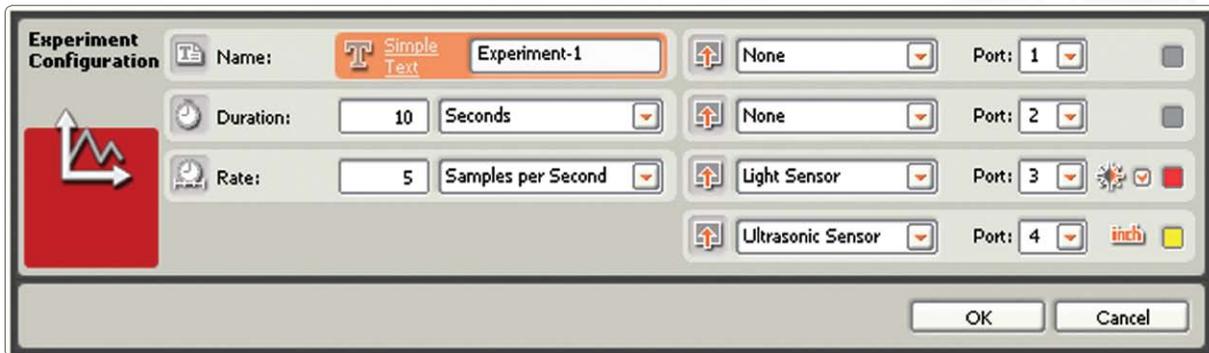
Analysis Tools

Once data has been collected, analyze single points or ranges using Analysis Tools. Analysis Tools displays the minimum, maximum, and mean. Analysis Tools also allows you to check the linear fit of any dataset on the Graph, including predictions.

Experiment Configuration

Each experiment has a configuration panel in which you can adjust the parameters of the experiment.

By changing the rate and duration of an experiment, you can change how often and for how long data is collected. Up to four sensors can be used at one time and the unit of measurement can be toggled.



The Dataset Table

The Dataset Table shows all the x and y values from your predictions and datasets. You can modify how your predictions and datasets are displayed on the Graph, including hiding selected predictions and datasets, changing colors, plot styles and/or unit of measurement.

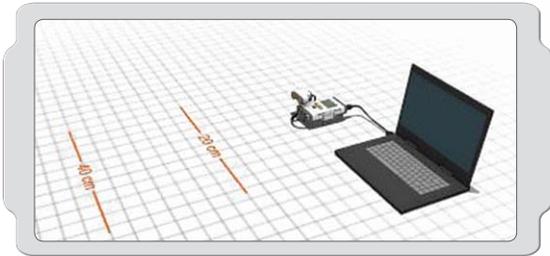
The Dataset Table presents your predictions and results numerically, whereas the Graph is the visual representation of the same data.

The screenshot shows the 'Dataset Table' window. It contains a table with the following data:

| Start Time | 0,00 | 0,20 | 0,40 | 0,60 | 0,80 | 1,00 |
|------------------|-------|-------|-------|-------|-------|-------|
| 17-09-2008 14:45 | 3,00 | 3,00 | 3,00 | 4,00 | 4,00 | 4,00 |
| 17-09-2008 14:45 | 19,00 | 19,00 | 48,00 | 19,00 | 19,00 | 19,00 |
| 17-09-2008 14:44 | 42,07 | 42,07 | 40,62 | 40,08 | 39,54 | 39,00 |
| 17-09-2008 14:44 | 24,04 | 24,04 | 24,04 | 24,04 | 24,04 | 24,04 |

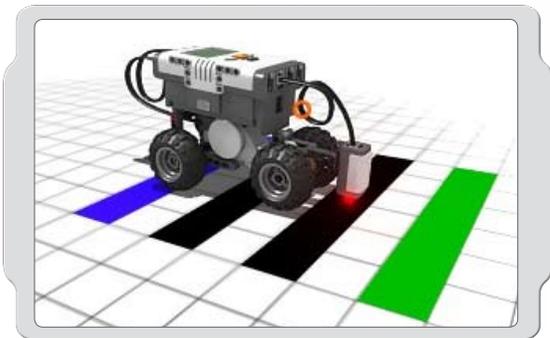
Four Ways to Data Log

There are four ways you can carry out a data logging experiment using the NXT brick and the Data Logging window. The method you choose dependent on the type of experiment you are carrying out and phase that you are in: prediction, collection or analysis.



Live

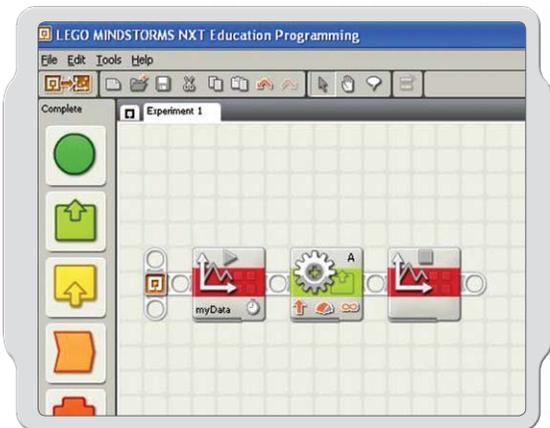
This means that the NXT and your computer are connected throughout all three phases of the experiment, thus enabling real-time feedback. The Graph and Dataset Table will populate with data as the experiment progresses.



Remote

This means that the NXT is not connected to the computer during the collection phase of the experiment. The NXT and your computer are connected only during configuration of the experiment. Once you have downloaded your experiment to the NXT brick, you are ready to go into the field to collect your data.

During a remote experiment, data is stored on the NXT and can be uploaded for analysis to your computer at a later point.



NXT programming window

This means that you can program the NXT robot in the NXT programming window using the Start Data Logging and Stop Data Logging blocks.

A log file is automatically created on the NXT brick when you run the program. You can import the log file to the Data Logging window to see it on the Graph and to analyze the data.



NXT Datalog

This means that the NXT is not connected to your computer. Configure and run your experiment directly on the NXT brick without a computer. A log file is created automatically on the NXT brick when you run the program.

Much like the remote experiment, data is stored on the NXT brick and can be uploaded for analysis to your computer at a later point.

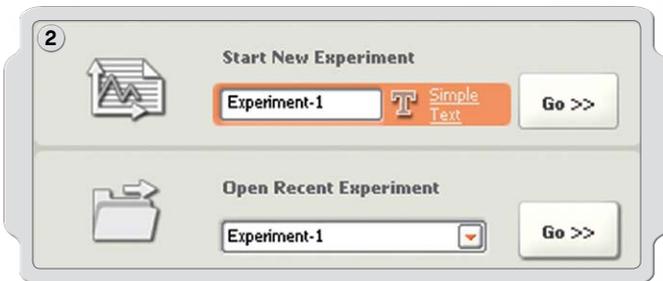
Data Logging

Your First Data Logging Experiment

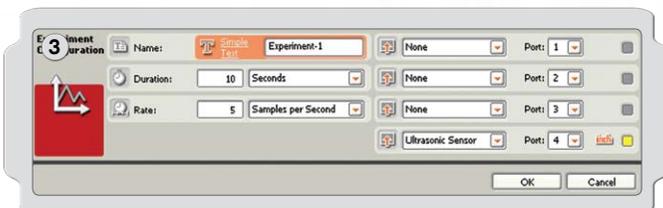
This simple program shows you how to configure, make a prediction, and run an experiment.



Start the software on your PC or Mac by double-clicking the program icon.

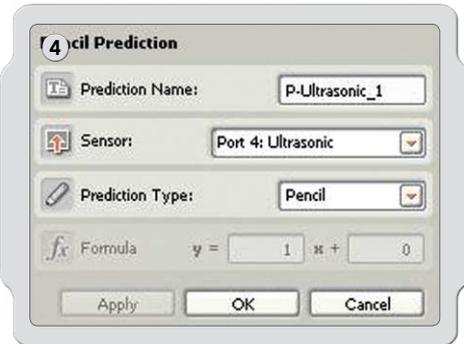


Type in the name of your experiment, or just click Go!

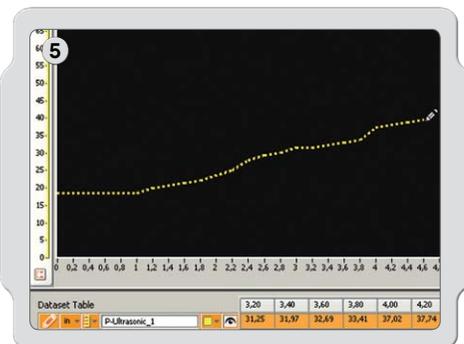


Click on the Sensor drop-down menu to select the Ultrasonic sensor and then click OK.

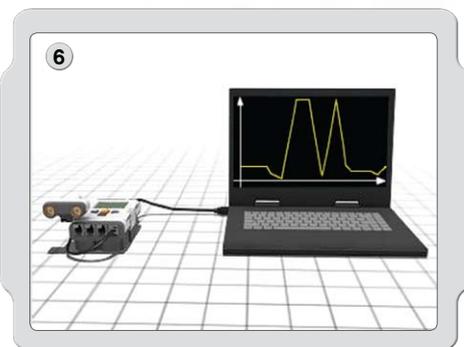
Your First Data Logging Experiment



To make a prediction, click on the Prediction Tools icon, select New Prediction, and then click OK.



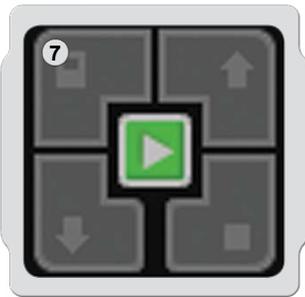
Use the pencil cursor to draw your prediction on the Graph.



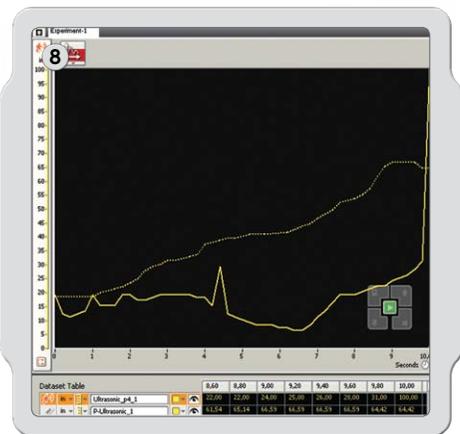
Make sure you turn on your NXT and connect the USB cable to your computer and the NXT. Check that your NXT brick is connected to the NXT software and that your NXT brick is updated with the latest firmware (see page 77).

Now connect the Ultrasonic sensor to Port 4.

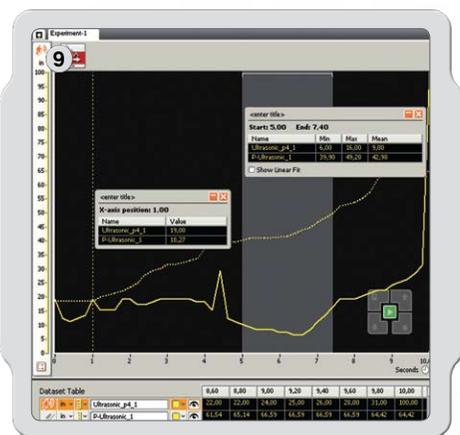
Your First Data Logging Experiment



Locate the Controller in the lower right corner of the Graph in the NXT Data Logging window. Click Download and run (the center button) and watch what happens on the Graph.



You have now run your first experiment and collected your first dataset.



Now it is time to analyze your results. Click on Analysis Tools and click on Point or Section Analysis. Then drag the analysis lines to the right and left.

Congratulations! You have completed your first Data Logging experiment. Now create a new experiment and try using two sensors at one time, which creates two y-axes on the same graph.

And remember, the Robot Educator (see pages 53-55) features a series of beginner to advanced data logging tutorials to help you learn more about data logging.

Manage Log Files

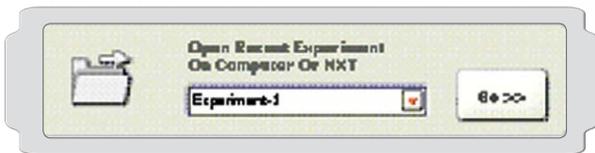
Carrying out a Data Logging experiment using MINDSTORMS® NXT automatically creates a log file on your NXT brick. When your NXT brick is not connected to your computer, (i.e. when carrying out a remote experiment), log files are saved on the NXT brick. When your NXT brick is connected to your computer, the log file is saved automatically in the MINDSTORMS NXT software folder on your computer.

A log file consists of one or more datasets. The visual is the graphic representation of the dataset.

Log Files

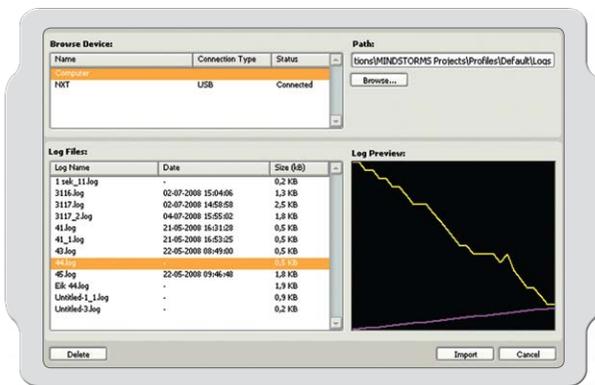
The dataset from a data logging experiment is always saved as a simple text file (called log). This means that log files can be opened in a text editor or spreadsheet.

Log files can be accessed in three ways:



Open Experiment

This opens a new experiment tab using a log file. Open Recent Experiment is the most common method to access log files.

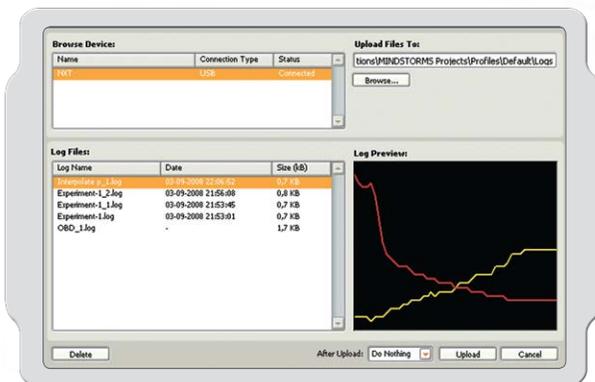


Import Experiment

This will import log files that are stored on the NXT brick or saved on the computer into the active experiment tab.

This option is ideal when you want to compare experiments.

The Log Manager is a convenient and easy way to preview and manage log files on your NXT brick and computer.



Upload From NXT

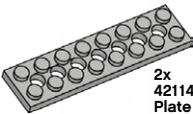
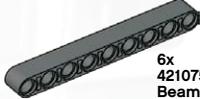
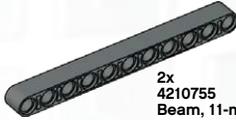
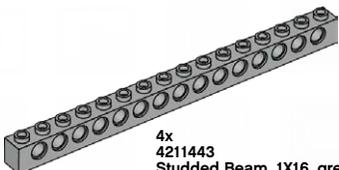
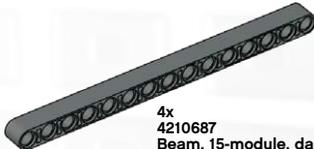
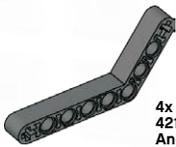
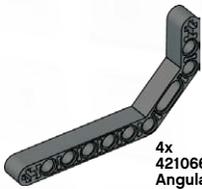
This uploads log files that are stored on the NXT brick to the computer.

Parts List For Base Set #9797

The LEGO® MINDSTORMS® Education NXT set #9797 is the main set for building NXT robots. Here is a list of the building elements included in the set.

| | | | | | |
|---|--|---|---|---|---|
|  | 1x 448521 Minifigure, cap, red |  | 2x 4119589 Connector peg, 2-module double, black |  | 4x 4211398 Plate, 1X2, grey |
|  | 1x 609326 Minifigure, ponytail wig, black |  | 2x 4211688 Connector peg, handle, grey |  | 8x 4211388 Brick, 1X2, grey |
|  | 1x 4261269 Minifigure, head, yellow |  | 2x 4225033 Connector peg, 3-module double, grey |  | 4x 4211387 Brick, 2X2, grey |
|  | 1x 4275606 Minifigure, body, white with surfer |  | 4x 4239896 1/2 beam, 3X5 curve, dark grey |  | 8x 4186017 Connector peg with axle, beige |
|  | 1x 4120158 Minifigure, legs, orange |  | 20x 4211775 Cross block, 2-module, grey |  | 10x 4206482 Connector peg with friction / axle, blue |
|  | 1x 306548 Brick, 1X2, green translucent |  | 4x 4210857 Cross block, 3-module, dark grey |  | 8x 4140801 Connector peg with bushing, black |
|  | 1x 306541 Brick, 1X2, red translucent |  | 8x 4121667 Cross block, double, black |  | 10x 4239601 Bushing, 1/2-module, yellow |
|  | 1x 306544 Brick, 1X2, yellow translucent |  | 4x 4113805 Bushing, axle extender, black |  | 10x 4211622 Bushing, grey |
|  | 2x 4299119 Hub, 18X14, grey |  | 4x 4211432 Gear, 8-tooth, grey |  | 2x 4211052 Tile, 1X2, dark grey |
|  | 2x 4153005 Tire, 24X14, black |  | 4x 4211563 Gear, 16-tooth, grey |  | 4x 4177431 Gear, 12-tooth double bevel, black |
|  | 4x 4494222 Hub, 24X4, grey |  | 2x 4211434 Gear, 24-tooth crown, grey |  | 2x 471626 Gear, worm, black |
|  | 4x 281526 Tire, 30.4X4, black |  | 2x 4211635 Gear, 20-tooth double bevel, grey |  | 4x 4248204 Gear, 4-tooth, black |
| | |  | 4x 4211565 Gear, 24-tooth, grey | | |

Parts List For Base Set #9797

| | | | | | |
|---|---|---|--|---|---|
|  | 4x 4211445 Plate, 1X4, grey |  | 2x 4285634 Gear, 40-tooth, grey |  | 10x 4210751 Beam, 3-module, dark grey |
|  | 2x 4211444 Plate with holes, 2X4, grey |  | 4x 4211440 Studded Beam, 1X2, grey |  | 4x 4210686 Beam, 5-module, dark grey |
|  | 2x 4211542 Plate with holes, 2X6, grey |  | 4x 4211441 Studded Beam, 1X4, grey |  | 4x 4495931 Beam, 7-module, dark grey |
|  | 2x 4211449 Plate with holes, 2X8, grey |  | 4x 4211466 Studded Beam, 1X6, grey |  | 6x 4210757 Beam, 9-module, dark grey |
|  | 2x 4255563 Gear, 36-tooth, black |  | 4x 4211442 Studded Beam, 1X8, grey |  | 2x 4210755 Beam, 11-module, dark grey |
|  | 2x 4210655 Cross block, 2X1-module, dark grey |  | 4x 4211443 Studded Beam, 1X16, grey |  | 2x 4261932 Beam, 13-module, dark grey |
|  | 2x 4107783 Angular block, 2 (180°), black |  | 4x 4210667 Angular beam, 4X2-module, dark grey |  | 4x 4210687 Beam, 15-module, dark grey |
|  | 2x 4100396 Belt, 24mm, red |  | 8x 4210753 Angular beam, 3X5-module, dark grey | | |
|  | 2x 70905 Belt, 33mm, yellow |  | 4x 4210638 Angular beam, 4X6-module, dark grey | | |
|  | 60x 4121715 Connector peg with friction, black |  | 4x 4210668 Angular beam, 3X7-module, dark grey | | |
|  | 36x 655826 Connector peg with friction, 3-module, black | | | | |
|  | 2x 4210935 Studded beam, 1X2 with cross hole, dark grey | | | | |

Parts List For Base Set #9797

2x
4263624
Axle, 5½-module, dark grey

2
8x
4142865
Axle, 2-module, red

3
14x
4211815
Axle, 3-module, grey

5
8x
4211639
Axle, 5-module, grey

4
6x
370526
Axle, 4-module, black

6
4x
370626
Axle, 6-module, black

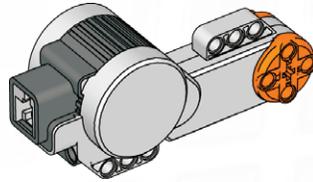
8
2x
370726
Axle, 8-module, black

10
2x
373726
Axle, 10-module, black

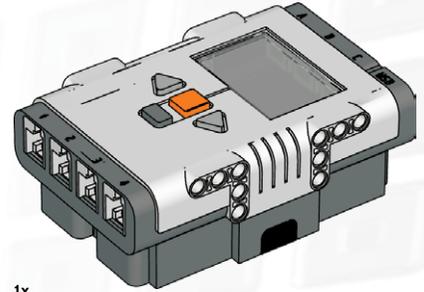
12
2x
370826
Axle, 12-module, black

1x
4235858
Gear/turtable, 24-tooth
inner/56-tooth outer, black

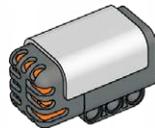
3x
74880
Lamp, 1X2, white



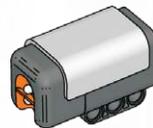
3x
4297008
Interactive Servo Motor, NXT



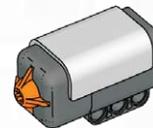
1x
4296825
NXT



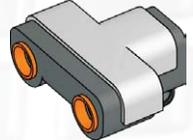
1x
4296969
Sound Sensor, NXT



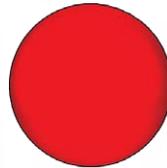
1x
4296917
Light Sensor, NXT



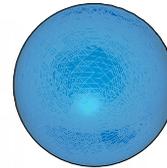
2x
4296929
Touch Sensor, NXT



1x
4297174
Ultrasonic Sensor, NXT



1x
4156530
Ball, 52mm, red



1x
4100758
Ball, 52 mm, blue



4x
4297209
Tire, 56X26, black



4x
4297210
Hub, 30X20, grey



3x
4494063
Converter cable, NXT



1x
4493444
USB cable



1x
4494062
Rechargeable battery, NXT



1x
4297187
Cable, 20 cm

20 CM/8 INCH



4x
4297188
Cable, 35 cm

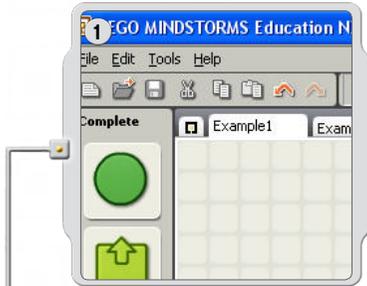
35 CM/14 INCH



2x
4297185
Cable, 50 cm

50 CM/20 INCH

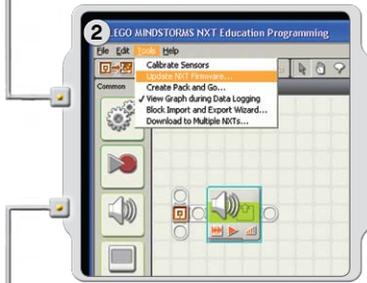
Download to Multiple NXTs



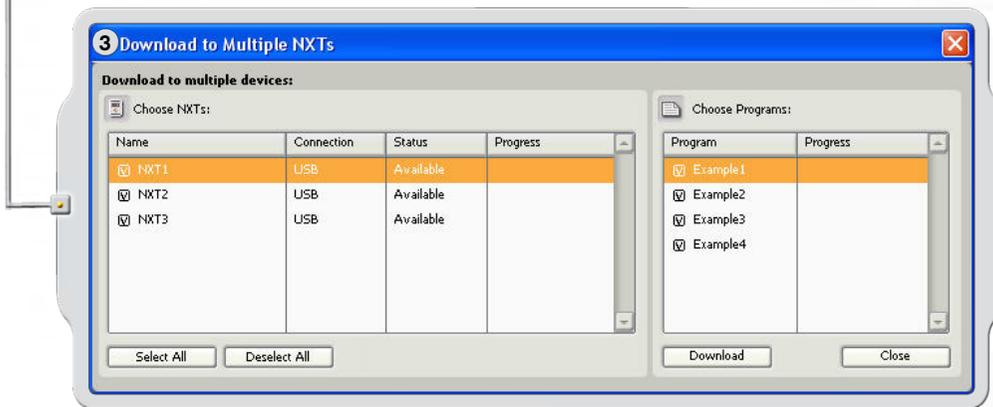
This function allows you to download one or more programs to multiple NXTs. This is especially useful if you need to load a number of NXTs with the same program(s) for a competition or classroom assignment.



Before using this function, make sure that all of the programs you would like to download are open in the software. When you open more than one program at the same time, the program names appear as tabs along the top of the work area. Also, make sure your NXT bricks are “Available” by clicking Scan in the NXT window. Otherwise, they will not appear in the Download to Multiple NXTs window.



When the programs that you would like to download are open, launch the function by choosing Download to Multiple NXTs ... in the Tools menu. This will launch the Download to Multiple NXTs dialog box.



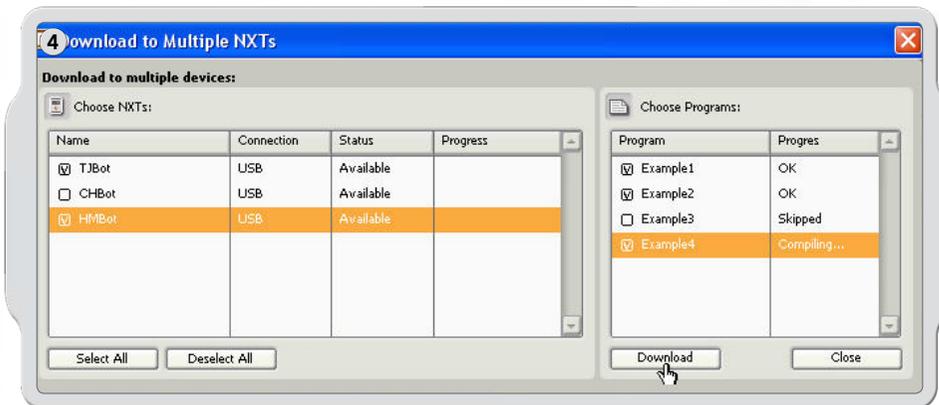
1. Choose NXTs lists all of the NXT bricks that are currently available.
2. Choose Programs lists all of the programs that are currently open.

By default, all NXTs and all programs are selected when the Download Multiple NXTs window opens.

You can click the check boxes to deselect NXTs or programs.

Download to Multiple NXTs

Note: If you do not see an NXT on the list, close the Download to Multiple NXTs window and open the NXT window. Make sure that all the NXTs have been configured in this window before opening the Download to Multiple NXTs window.



When you are ready, click the Download button below the program list. This begins the download process. The Progress column displays the download progress.

There are several possible Status and Progress options displayed in the Choose NXT area of the Download to Multiple NXTs window.

Status:

Available – if the NXT can be selected but is not for this download.
Unavailable – if the NXT is not seen by the computer.
Connected – if the NXT is selected and ready for downloading.

Progress:

Skipped – if you did not select that program file.
Downloading – if it is in progress.
OK – when downloading that program is complete.
Error – if a problem is encountered during the downloading process.

Click the Close button when you are finished downloading programs to multiple NXTs.

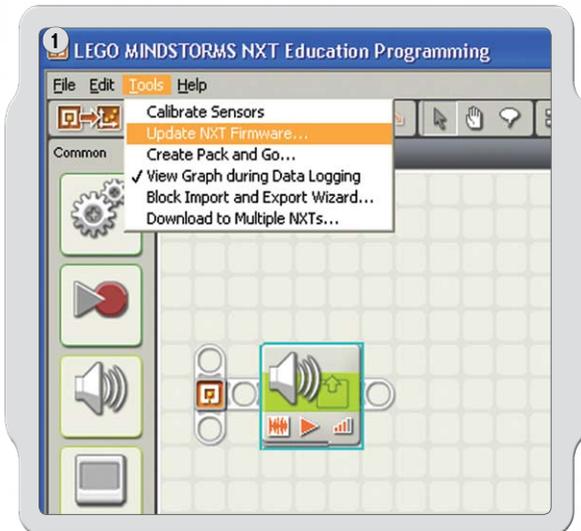
Troubleshooting



Resetting the NXT

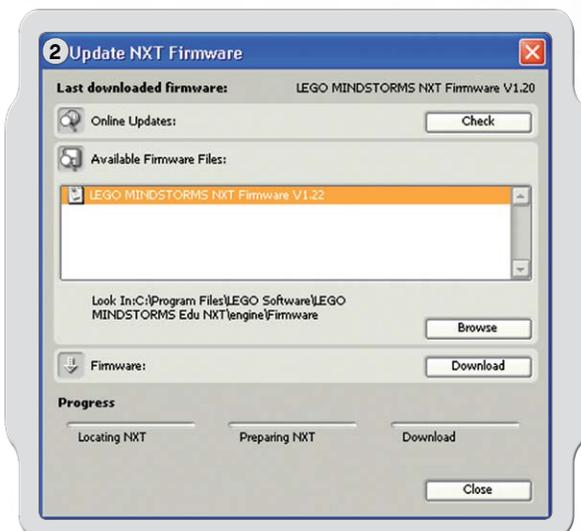
If the running icon stops spinning, the NXT has frozen and you must reset it. Follow these steps to reset the NXT:

1. Make sure that the NXT is turned on.
2. Press the reset button that is located on the back of your NXT in the LEGO® Technic hole in the upper left corner. Use, for example, an unfolded paperclip to press the button.
3. If you press the reset button for more than 4 seconds, you will need to update the firmware.



Updating the firmware in the NXT from your computer

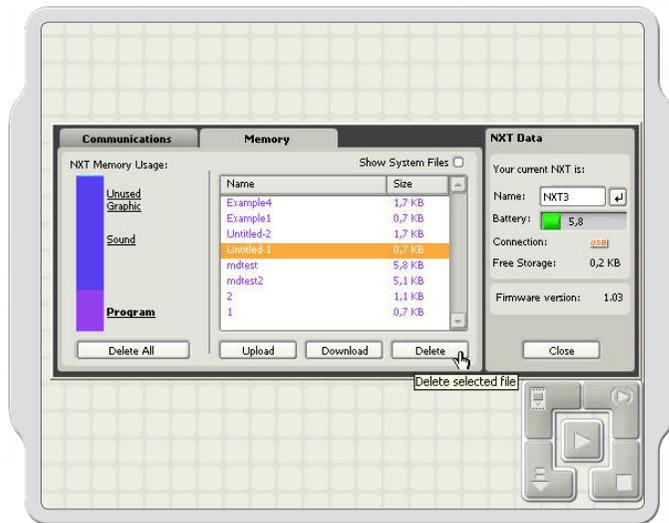
1. Make sure that the NXT is turned on. Note: If you have just reset your NXT (see above) the display will not show anything. A ticking sound will tell whether it is turned on or not.
2. Make sure the NXT and computer are connected with the USB cable.
3. Go to the Tools pull-down menu in the software menu bar and select Update NXT Firmware.



Select the firmware you want to update. Click download.

Note: The Windows “Found new hardware wizard” will pop-up the first time you update your firmware. Complete the wizard by following the on-screen instruction before you continue.

Troubleshooting



Managing NXT Memory

You can download other files to the NXT until the memory is full. When the memory is full, you can select programs to delete in order to make space.



Clicking Delete All removes only your programs, not your system files.

For more Troubleshooting help, go to www.MINDSTORMSeducation.com

US:

Model: LEGO MINDSTORMS NXT FCC ID: NPI53788

This device complies with part 15 of the FCC Rules. Operation is subject to the following 2 conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received including interference that may cause undesired operation.

Warning:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

CAN:

Model: LEGO MINDSTORMS NXT FCC ID: NPI53788

Cet appareil est conforme aux exigences de la section 15 des règlements du Conseil supérieur de l'audiovisuel (FCC). Son fonctionnement est soumis aux 2 conditions qui suivent:

1. Cet appareil ne peut causer de brouillage nocif.
2. Cet appareil doit accepter tout brouillage reçu y compris le brouillage pouvant engendrer un mode d'opération non souhaité.

Avvertissement :

Les changements ou modifications apportés à cette unité et n'ayant pas été expressément autorisés par l'équipe responsable de la conformité aux règlements pourraient annuler la permission accordée à l'utilisateur quant à l'opération de l'équipement.

REMARQUE :

Cet équipement a été testé et déclaré conforme aux limites définies dans la section 15 de la réglementation FCC et applicables aux appareils numériques de classe B. Ces limites sont fixées pour obtenir une protection satisfaisante contre les interférences nuisibles dans les installations résidentielles. Cet équipement produit, consomme et peut émettre de l'énergie radioélectrique et il risque, s'il n'est pas installé et utilisé conformément aux instructions, de provoquer des interférences nuisibles avec les communications radio. Il est cependant impossible de garantir que des interférences ne surviendront pas dans une installation particulière. Si cet équipement est la cause d'interférences gênant la réception de programmes radio ou télévisés, ce qui peut être déterminé en mettant l'appareil hors tension et de nouveau sous tension, il est demandé à l'utilisateur de tenter de remédier au problème à l'aide d'une ou plusieurs des mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance séparant l'équipement et le récepteur.
- Raccorder l'équipement sur une sortie appartenant à un circuit différent de celui auquel le récepteur est connecté.

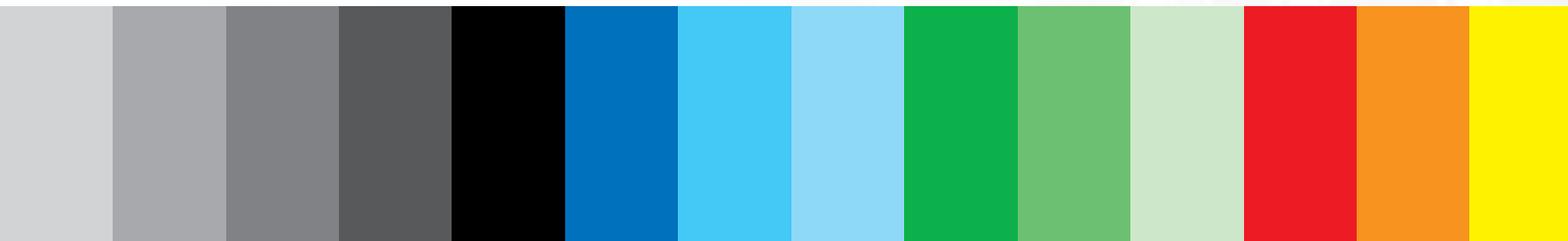
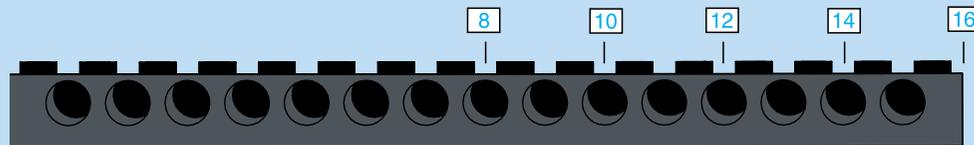
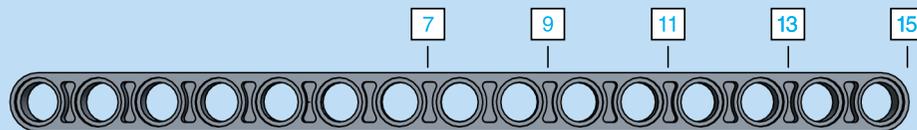
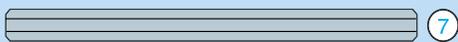
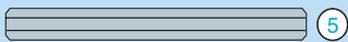
Consulter le revendeur ou un technicien radio-télévision expérimenté pour obtenir de l'aide.

UK:

The LEGO Group hereby declares that the LEGO® MINDSTORMS® Education Base Set (9797) complies with the requirements of the relevant provisions of EU Directive 1999/5/E.



1:1



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