Texas Instruments

TI-nspire™

Getting Started with the TI-Nspire™/TI-Nspire™ CX Docking Station

This guidebook applies to TI-Nspire™ software version 3.9. To obtain the latest version of the documentation, go to *education.ti.com/guides*.

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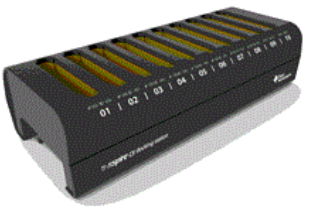
TI-Nspire™ Docking Stations

The TI-Nspire™ Docking Stations provide solutions for recharging batteries and transferring files to multiple handhelds at the same time.

TI-Nspire™ Docking Station



TI-Nspire™ CX Docking Station

The TI-Nspire™ Docking Station was designed to accommodate ten TI-Nspire™ CAS with Touchpad and TI-Nspire™ with Touchpad handhelds with or without slide cases. The TI-Nspire™ Docking Station can also accommodate the TI-Nspire™ CX and TI-Nspire™ CX CAS handhelds.

The TI-Nspire™ CX Docking Station was designed specifically for use with the TI-Nspire™ CX CAS and TI-Nspire CX handhelds. Each CX docking station can hold up to ten CX handhelds; however, you cannot seat TI-Nspire™ handhelds in a CX docking station.

Using TI-Nspire™ Docking Stations

In the classroom, you can use docking stations to:

- Charge the lithium-ion TI-Nspire™ Rechargeable Batteries in rechargeable-ready TI-Nspire™ and TI-Nspire™ CX handhelds.
- Transfer files to multiple handhelds at the same time using the Transfer Tool option in TI-Nspire™ Teacher Software, TI-Nspire™ CAS Teacher Software, or TI-Nspire™ Navigator™ Teacher Software.
- Upgrade the operating system (OS) on multiple TI-Nspire™ or TI-Nspire™ CX handhelds at the same time.

You cannot use docking stations to charge batteries or transfer files to a handheld without a current OS or to load an OS to handhelds that do not have an operating system.

What You Need to Know about Using Docking Stations

When using TI-Nspire™ Docking Stations, keep the following points in mind:

- When transferring files, docking stations can be used individually or linked together (daisy-chained).
  - Linking TI-Nspire™ docking stations together with standard USB cables enables you to transfer files to up to 40 handhelds at the same time.
  - If configured using five CX docking stations, the CX docking stations can support up to 50 handhelds when using two computer USB ports.
  - At least one of the docking stations in the chain must be connected to the teacher computer and all of the docking stations must be connected to a power outlet or power strip.
- When using multiple docking stations to charge TI-Nspire™ Rechargeable Batteries or transfer files, you must connect each docking station to a power outlet or to a power strip with multiple outlets.
- It is not necessary to fill all the slots in the docking station to charge batteries or transfer files to handhelds.
- You can charge batteries and transfer files at the same time.
- When the docking stations are connected to a teacher computer, TI-Nspire™ teacher software enables you to view:
  - The status of the batteries in connected handhelds (both TI-Nspire™ Rechargeable Batteries and AAA batteries if applicable).
  - The status of files and folders being transferred to connected handhelds.
- Teachers using TI-Nspire™ Navigator™ Teacher Software can disable Press-to-Test from multiple handhelds using the TI-Nspire™ docking stations. For more information, see the *Press-to-Test Guidebook* for more information.

What You Need to Know about CX Handhelds

When using a docking station to charge or transfer files to the TI-Nspire™ CX handheld, keep the following points in mind:

- A full set of CX handhelds with lithium-ion batteries can be completely charged in six hours or less from a power outlet.
- Communication with CX handhelds in a docking station is through USB cables if no wireless adapter is attached or if a wireless adapter is attached but not associated with an access point.
- If the CX handhelds have wireless adapters with an access point connection, the battery will charge but communication will continue through the wireless adapter.

Software and System Requirements

To transfer files to handhelds in the TI-Nspire™ Docking Station and TI-Nspire™ CX Docking Station, teachers must have one of the following:

- TI-Nspire™ Teacher Software (Version 2.1 or higher)
- TI-Nspire™ CAS Teacher Software (Version 2.1 or higher)
- TI-Nspire™ Navigator™ Teacher Software (Version 3.0 or higher)

When using the docking stations to transfer files to or charge batteries in the TI-Nspire™ CX handhelds, all software must be Version 3.0 or higher.

Requirements

To use the transfer function or view status of the handhelds, the teacher computer must meet the minimum requirements for installing and running the software. For more information about system requirements, go to education.ti.com/guides, where you can download the relevant guidebook.

Supported Handhelds

TI-Nspire™ handhelds that can be used with the docking stations are listed in the following table. The check mark indicates whether the handheld is rechargeable-ready, can accept transferred files, or both.

To use a docking station to charge batteries in a handheld or transfer files to a TI-Nspire™ handheld, the operating system must be Handheld Operating System 2.1 or higher. For TI-Nspire™ CX handhelds, the Handheld Operating System must be 3.0 or higher.

Supported Handheld	Charge	Transfer
TI-Nspire™ CX Docking Station		

Supported Handheld	Charge	Transfer
TI-Nspire™ CX Handheld	✓	✓
TI-Nspire™ CX CAS Handheld	✓	✓
TI-Nspire™ Docking Station		
TI-Nspire™ CX Handheld	✓	✓
TI-Nspire™ CX CAS Handheld	✓	✓
TI-Nspire™ CAS handheld with Touchpad (rechargeable-ready)	✓	✓
TI-Nspire™ handheld with Touchpad (rechargeable-ready)	✓	✓
TI-Nspire™ handheld with TI-84 Plus keypad (rechargeable-ready)	✓	
TI-Nspire™ handheld with Clickpad		✓
TI-Nspire™ CAS handheld with Clickpad		✓

Batteries

- TI-Nspire™ Rechargeable Battery
- Four alkaline AAA batteries (TI-Nspire™ handhelds only)
  - Alkaline batteries cannot be recharged.
  - Do not under any circumstances use rechargeable AAA batteries in your handheld.

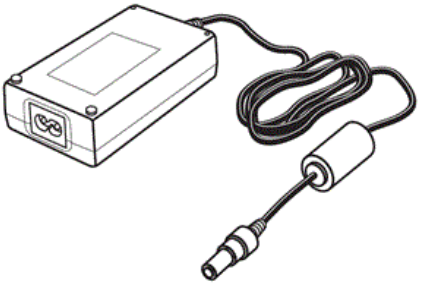
Although AAA batteries cannot be recharged, it is not necessary to remove them from the handheld when using the TI-Nspire™ Docking Station to transfer files or charge the TI-Nspire™ Rechargeable Battery.

Preparing TI-Nspire™ Docking Stations for Use

The TI-Nspire™ Docking Station and the TI-Nspire™ CX Docking Station are shipped with the following components in each package:

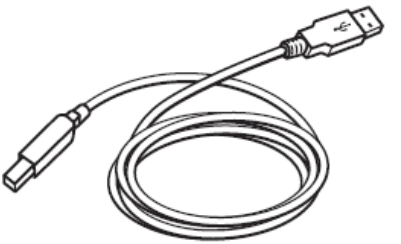
- A TI-Nspire™ Docking Station or TI-Nspire™ CX Docking Station
- An AC adapter
- A regional power cord adapter

USB cables are provided with the TI-Nspire™ handhelds.



AC Adapter

If you plan to link multiple docking stations together to transfer files, you will also need USB cables (standard A to mini-B USB cables). For example, if you need to transfer data to handhelds in four docking stations linked to the teacher computer, you will need four USB cables.



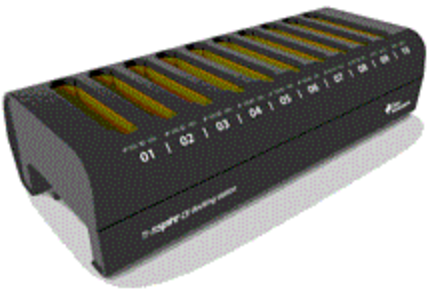
Standard A to Mini-B USB Cable

Docking Station Features

Both the TI-Nspire™ Docking Station and the TI-Nspire™ CX Docking Station are designed to be easy to use and easy to move when needed in a different classroom. Once all components are unpacked, the docking station can be set up for use in minutes.

The TI-Nspire™ Docking Station has 10 slots and each slot can accommodate either a TI-Nspire™ CX Handheld or a TI-Nspire™ handheld. You can also seat a TI-Nspire™ handheld with a slide case on the front of the handheld in the TI-Nspire™ Docking Station.

The TI-Nspire™ CX Docking Station also has 10 slots; however, this docking station was designed specifically for the TI-Nspire™ CX Handheld. You cannot seat TI-Nspire™ handhelds in the CX docking station.



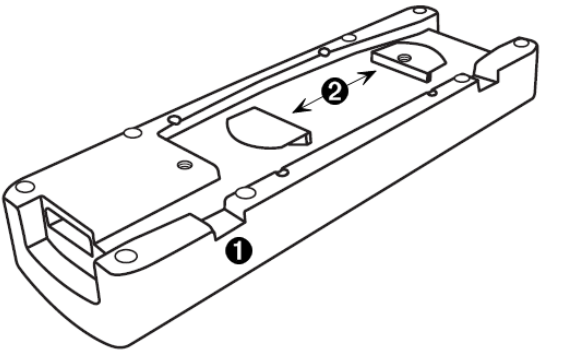
The LED indicators on the front of the docking stations provide information about the battery status, transfer status, and indicate whether the handheld is properly seated.

✓) Transfer Status LED Indicator

Battery Status LED Indicator

Indentations on each side of the docking stations enable you to lift a docking station using both hands.

Turn the docking stations over and you will notice an indentation or “channel” across the bottom. To ensure the docking stations sit flat on a surface, thread the cable through this space when you are configuring multiple docking stations end-to-end. You can use the cable wrapper to manage excess USB cable when you don’t need to use the entire length.



❶ Use channel to thread cable.

❷ Use cable wrapper to manage excess cable.

Configuring the Docking Stations

When setting up multiple TI-Nspire™ Docking Stations, you must use a flat, stable surface such as a table. You can also use a standard school cart if you need to move the docking stations from classroom to classroom. When deciding on a location, it is important to consider proximity to both the teacher computer and access to a power source such as a power strip or wall outlet.

You can choose how you want to configure multiple docking stations depending on how much space you have on the table or cart. If your surface is long and narrow, you can configure docking stations end-to-end. If using a surface that is square or smaller in area, you can configure docking stations side-by-side.

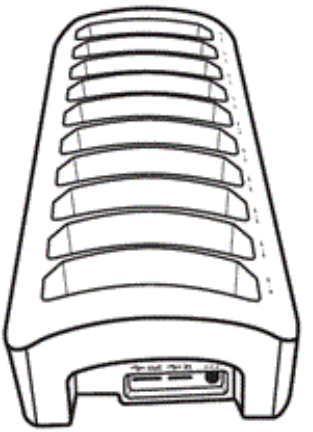
Your configuration will depend on the number of handhelds you normally have in your classroom. It is not necessary to set up three or four docking stations if you only need one or two.

Setting up Multiple Docking Stations

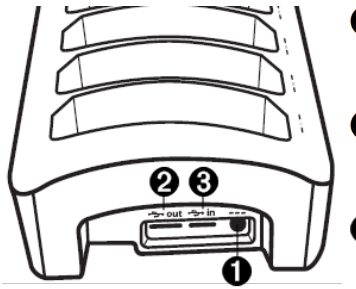
The CX docking station can support up to 50 handhelds in five docking stations. When connecting five CX docking stations together, TI recommends using two USB ports with two docking stations on one port and three stations on the other port. All CX docking stations must be connected to a power outlet.

Complete the following steps to configure multiple docking stations.

1. Place the docking stations on the surface.



2. Insert the AC adapters into each docking station, and then connect adapters to a power strip or wall outlet.



❶ AC adapter port

❷ Standard-A port (out)

❸ Mini-B port (in)

When using multiple docking stations to charge batteries or transfer files, you must connect each docking station to a power outlet or power strip.

3. Link the docking stations together with USB cables. The standard-A port is used to transfer data out. The mini-B port is used to transfer data in.
4. Connect the teacher computer to the closest docking station (for data transfer).

Inserting Handhelds into Docking Stations

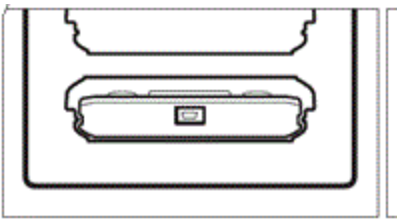
1. Align the connector on the bottom of the handheld with the connector on the docking station. When facing the front of the docking station (looking at the TI-Nspire™ logo), handhelds are inserted into the slot with the keypad facing right.
2. Push the handheld into the slot. You will feel a slight resistance and hear a small “pop” as the handheld is seated.

   When a handheld is properly seated in a slot:

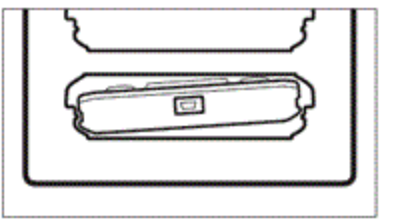
   - The Transfer Status LED blinks five times to indicate the handheld is connected.
   - The Battery Status LED illuminates to indicate the handheld is properly seated.

If the docking station is connected to power, handhelds are automatically turned on when placed in the slot.

The slots in the TI-Nspire™ Docking Station are wide enough to accommodate a handheld with a slide case attached. When you place a handheld into a slot without a slide case, you will notice some “wiggle room.” Because the slot is big enough to accommodate a slide case, it is possible to seat a handheld incorrectly. If the handheld is seated incorrectly in the docking station, the battery will not charge and the transfer will fail.



Handheld is seated correctly.



Handheld is seated incorrectly.

When docking stations are fully loaded with 10 handhelds, they can weigh approximately 10 to 12 pounds. When moving a docking station to another location, always use two hands to lift the docking station. If tilted too far in any direction, handhelds can fall out of the docking station.

Charging TI-Nspire™ Rechargeable Batteries

The charging process starts automatically when a handheld is placed into a slot if the docking station is connected to a power source. Otherwise, the charging process starts when the docking station is connected to a power source.

It is not necessary for the docking station to be connected to the teacher computer to charge the rechargeable batteries in the handhelds.

Determining Status of Batteries in a Handheld

The LED lights under each slot on the docking station provide basic information about the status of the TI-Nspire™ Rechargeable Battery or AAA batteries in the handheld. Status of batteries in the handheld is reported in the following priority:

- If a handheld has a rechargeable battery, status for the rechargeable battery is always reported even if the handheld also has AAA batteries.
- If the handheld only has AAA batteries, the status of the AAA batteries is reported.

Battery Status LED Indicator

To determine the status of the handheld's batteries, look at the Battery Status LED indicator for the slot under the handheld. The Battery Status LED Indicator is located to the right of the battery symbol ( ):

- Red indicates battery is low with less than 25 percent power
- Yellow indicates battery power is between 25 and 75 percent

- Green indicates battery power is greater than 75 percent
- The light is off when:
  - The slot is empty.
  - The handheld is not seated correctly.
  - The docking station is not connected to a power source.

Learning More about Battery Status

Additional information is available in the Content Workspace if using TI-Nspire™ Teacher Software, TI-Nspire™ CAS Teacher Software, or TI-Nspire™ Navigator™ Teacher Software. You can view the status of both the TI-Nspire™ Rechargeable Batteries and the AAA batteries in connected handhelds.

For both rechargeable batteries and AAA batteries, status levels are reported as they are on the handheld:

- Critical, low (two to ten percent), 25, 50, 75, or 100 percent charged.
- Percentages are presented in black text unless the level is critical. Red text indicates the battery power is critically low.
- Two dashes (--) indicate the handheld does not have a rechargeable battery or AAA batteries installed.

Troubleshooting

If the recharge fails:

- Make sure the handheld is seated properly in the slot. Batteries are not charged if the connector on the handheld and the connector in the slot are not aligned.
- Check the connector on the handheld to ensure that it is clean. If there is build-up on the handheld's connector, you can remove it with a clean, dry cloth or a pencil eraser. Never use wet cloths or solutions of any kind.

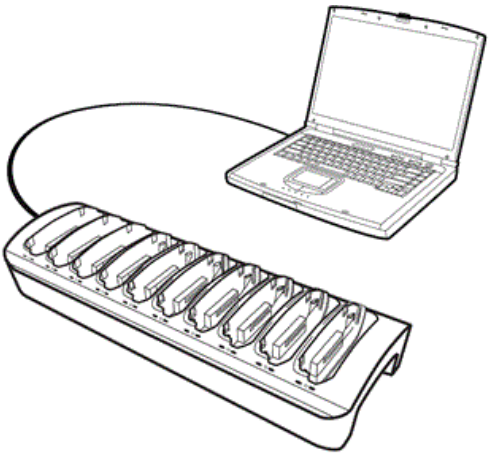
Transferring Files and Folders

Teachers can use the Transfer Tool function available in the TI-Nspire™ Teacher Software, TI-Nspire™ CAS Teacher Software, or TI-Nspire™ Navigator™ Teacher Software to reload connected handhelds in multiple docking stations with a common set of folders and files or upgrade the OS on handhelds with an existing operating system.

To transfer content to or from handhelds, you must also have handheld OS version 2.1 or higher installed on all connected TI-Nspire™ handhelds. If transferring to or from CX handhelds, you must have OS version 3.0 or higher.

Viewing Status and Settings

Teachers can also the view status and settings of connected handhelds. When using the Transfer Tool, one of the docking stations must be connected to the teacher's computer via a USB cable plugged into an available USB port. Multiple docking stations are linked together with USB cables.



Supported Files Types

You can transfer the following types of files to connected handhelds:

File Type	Extension
TI-Nspire™ document	.tns
Packaged lesson bundle file	.tilb
Handheld operating system files	
TI-Nspire™ CX Handheld	.tco
TI-Nspire™ CX CAS Handheld	.tcc
TI-Nspire™ Handheld	.tno
TI-Nspire™ CAS Handheld	.tnc

Using the Transfer Tool, you can select to transfer files to *all* connected handhelds or transfer files to *selected* handhelds in the docking station.

Transferring Files and Folders to Handhelds

Use the Transfer Tool, to select folders or files stored on your computer and transfer them to handhelds in the TI-Nspire™ Docking Stations. Once a transfer starts, it continues until you stop it. You cannot select additional files until the transfer is complete or until you stop the transfer.

You can remove a handheld from a docking station when the associated Transfer Status LED indicator shows that the transfer is complete. You can place another handheld in the empty slot and files will also be transferred to that handheld unless you stop the transfer.

For more information about how to use the Transfer Tool, see the following guidebooks:

- *TI-Nspire™ Teacher Software Guidebook*
- *TI-Nspire™ CAS Teacher Software Guidebook*
- *TI-Nspire™ Navigator™ Teacher Software Guidebook*

Viewing Transfer Status on the Docking Station

The Transfer Status LED indicators under each slot on the front of the docking station provide basic information about the status of the transfer for the handheld in that slot.

The Transfer Status LED Indicator is to the right of the transfer (✓) symbol.

✓ Transfer Status LED Indicator

- The LED indicator is off if handhelds are simply charging and no transfer activity is happening.
- A solid green light indicates transfer is complete and successful.
- A blinking green light indicates that the transfer is active (files are being sent).

Viewing Transfer Status on the Teacher Computer

Teachers can view the status of transferred files to individual handhelds in **Transfer Tool**. To view the status of transferred files:

1. In the Transfer Tool window, click the **Status** tab.
2. Click the **+** before the file name to open the display.

When you select a handheld in the tool, the following information is available:

- Handheld ID
- Name of the file being transferred
- Progress bar for that file on the selected handheld

For more information about using the Transfer Tool, see the >TI-Nspire™ Teacher Software Guidebook and the TI-Nspire™ Navigator™ Teacher Software Guidebook.

Troubleshooting

If the file transfer fails, check the handheld for the following error conditions:

- Low battery
- Wrong handheld type
- Memory full
- Lost connectivity
- Wrong OS version or no OS

Locating Handhelds in the Docking Station

Using the **Identify Selected Handheld** option available in TI-Nspire™ Teacher Software or TI-Nspire™ Navigator™ Teacher Software, you can quickly locate the slot for any handheld in the docking station. When you select the **Identify Selected Handheld** option, both of the LED lights under the slot where the selected handheld is located will blink for 30 seconds.

In the TI-Nspire™ Teacher Software and in the TI-Nspire™ Navigator™ Teacher Software, you will find the **Identify Selected Handheld** option on the **Tools** menu in the Content Workspace.

Storing Docking Stations

You can store the docking stations on a flat surface such as a table or standard school cart, which provides portability. If docking stations are set up on a surface that cannot be moved, you should consider proximity to both the teacher computer and a power source.

You can charge a classroom set of handhelds overnight without issues. However, you should be aware of any security issues in the building if the classroom cannot be locked.

Support and Service

Texas Instruments Support and Service

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International contact information:	education.ti.com/support/worldwide

For Technical Support

Knowledge Base and support by e-mail:	education.ti.com/support or ti-cares@ti.com
Phone (not toll-free):	(972) 917-8324

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Customers in the U.S., Canada, Mexico, and U.S. territories: Always contact Texas Instruments Customer Support before returning a product for service.

For All Other Countries:

For general information

For more information about TI products and services, contact TI by e-mail or visit the TI Internet address.

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Service and Warranty Information

For information about the length and terms of the warranty or about product service, refer to the warranty statement enclosed with this product or contact your local Texas Instruments retailer/distributor.

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