**TI STEM and Coding Resources: Getting Started and Beyond**

**TI-84 Plus CE Python using TI-Innovator Hub, TI-Rover, microbit, Tello Drone and more**

See [link](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3555)

**Getting Started with TI-84 Plus CE Python**

* Write your first Python program on TI-84 Plus CE (video) [link](https://www.youtube.com/watch?v=tN2WUAQRn0M)
* 10 Minutes of Code for Python  [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/10-minutes-ti-84)
  + Unit 1: Getting Started with Python
* **Meet the TI-Innovator Hub** [link](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3605)
* **Meet the Rover** [link](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3485)

* [10 Minutes of Code for Python](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Feducation.ti.com%2Fen%2Factivities%2Fti-codes%2Fpython%2Fnspire%2520%250d10&data=04%7C01%7Cconchita.england%40acboe.net%7Cff41f4b3a71349184ae208d9a9d5c6a1%7C95906bbc973947fc9c7faf193d7e5c12%7C0%7C0%7C637727557928885500%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=Pb5yIJlMHifaSAHA1xcSr5tHk2JgIDzxGu7qWsBnsv4%3D&reserved=0" \t "_blank" \o "https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Feducation.ti.com%2Fen%2Factivities%2Fti-codes%2Fpython%2Fnspire%2520%250d10&data=04%7C01%7Cconchita.england%40acboe.net%7Cff41f4b3a71349184ae208d9a9d5c6a1%7C95906bbc973947fc9c7faf193d7e5c12%7C0%7C0%7C637727557928885500%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=Pb5yIJlMHifaSAHA1xcSr5tHk2JgIDzxGu7qWsBnsv4%3D&reserved=0)with TI-Innovator Hub and Rover [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/10-minutes-innovator)
  + Unit 1: Getting Started with Python and TI-Innovator Hub
  + Unit 4: Rover’s Driving Features
* Introduction to SmartView CE software for demonstration (video) [link](https://youtu.be/A9c10sMT5I8)

**TI-Rover Projects and Activities**

* **Meet the Rover** [link](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3485)
* **Rover, Watch Out for Rover** [link](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3558)
* **Math in Motion Lessons** [link](https://education.ti.com/en/activities/innovator/math)
  + Move the Cone
  + Navigate “Math-hattan” Challenge
  + Drive the Line Challenge
  + Driving Inequalities Challenge
* [**10 Minutes of Code for Python**](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Feducation.ti.com%2Fen%2Factivities%2Fti-codes%2Fpython%2Fnspire%2520%250d10&data=04%7C01%7Cconchita.england%40acboe.net%7Cff41f4b3a71349184ae208d9a9d5c6a1%7C95906bbc973947fc9c7faf193d7e5c12%7C0%7C0%7C637727557928885500%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=Pb5yIJlMHifaSAHA1xcSr5tHk2JgIDzxGu7qWsBnsv4%3D&reserved=0)**with TI-Innovator Hub and Rover** [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/10-minutes-innovator)
  + Unit 4: Rover’s Driving Features
  + Unit 5: Rover’s Sensors
  + Unit 6: Rover’s Coordinates
* **On-Ramp to Robotics: Unit 1 Motion Mars Challenge** [link](•https:/resources.tistemprojects.com/tistemprojects-home?resource_id=3582)

**Note:** See the project pages to download teacher background PDF’s, student handouts, Teacher files with example programs and student files with scaffolding of the project.

**Turtle Python Module (no additional equipment required)**

* Overview of the Python Turtle module [link](https://education.ti.com/en/product-resources/turtle-module/ti84ce-python)
  + Includes Python module installation information
* 10 Minutes of Code for Python Modules: Turtle Graphics [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/python-modules)

**Connectivity to handhelds**

Transfer files to and from the calculator. Screen Snapshots. Update Handheld OS.

* **TI Connect CE Software for Mac and Windows** [link](https://education.ti.com/en/products/computer-software/ti-connect-ce-sw)
* **TI Connect CE App for Chromebooks** [link](https://chrome.google.com/webstore/detail/ti-connect-ce-app-for-chr/aokihcpccmdjjkebakdanncddpdnkfla?hl=en-US)

**Microbit Resources**

* Overview of the Microbit with TI Python [link](https://education.ti.com/en/product-resources/microbit)
  + Includes Python module installation information
  + Includes TI microbit Hex file information
* 10 Minutes of Code Python [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/python-modules)
  + Micro:bit unit
* Microbit.org Python activities\* [link](https://microbit.org/projects/make-it-code-it/?filters=python)
  + \*The TI-84 Plus CE microbit Python module supports these activities.

**Tello Drone**

* Overview of the Tello Drone module and equipment [link](https://education.ti.com/en/product-resources/tello-drone)
  + Includes Python module installation information
  + Includes equipment set up information
* 10 Minutes of Code for Python Modules: Tello Drone Coming Summer 2023

**Wonder Workshop Dash Robotic Vehicle**

* Overview of the Dash with TI Python [link](https://education.ti.com/en/product-resources/dash)
* Meet the Dash with TI-Nspire CXII Python [link](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=3617)
* Rover, Watch out for Dash [link](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=3619)

**Other Resources**

* **TI Codes Lessons and Resources** [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python)
  + 10 Minutes of Code for Python [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/10-minutes-ti-84)
  + 10 Minutes of Code for Python TI-Innovator and Rover [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/10-minutes-innovator)
    - RGB Array Unit 7
  + 10 Minutes of Code for Python Modules [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/python-modules)
  + 10 Minutes of Code Teacher’s Lounge [link](https://education.ti.com/en/activities/ti-codes/python/ti-84p-ce-python/teacher-lounge)
    - Download student handouts
    - See curriculum alignments
* **Adventures in Coding and STEM in the Mathematics Classroom** **(On Demand Webinar)** [link](https://education.ti.com/en/t3-professional-development/for-teachers-and-teams/online-learning/on-demand-webinars/2018/adventures-in-coding-and-stem-in-the-math-classroom)