

# TI STEM and Coding Resources: Getting Started and Beyond

## TI-84 Plus CE TI-Basic using TI-Innovator Hub, TI-Rover and more

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

### Getting Started with TI-84 Plus CE TI-Basic

- **Overview of TI-84 Plus CE (video)** <https://www.youtube.com/watch?v=ggnkUtkTTSc&list=PL17Fe0ZmhCR-PAuv5pw85vxrtLu5YGeWl&index=2>
- **Write your first TI-Basic program with TI-Innovator Hub (video)** <https://www.youtube.com/watch?v=qJC0xevuqhw&list=PL17Fe0ZmhCR-PAuv5pw85vxrtLu5YGeWl&index=3>
- **10 Minutes of Code for TI-Basic Unit 1: Program Basics** <https://education.ti.com/en/activities/ti-codes/84/10-minutes>
- **Meet the Rover** [https://resources.tistemprojects.com/tistemprojects-home?resource\\_id=3485](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3485)
- **10 Minutes of Code for TI-Basic with Hub and Rover Unit 1: Hub and Unit 4: Rover** <https://education.ti.com/en/activities/ti-codes/84/10-minutes-innovator>

### TI-Innovator Hub Projects and Activities

#### Smart System Projects

- **Digital Mood Ring** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=1880](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=1880)
  - includes step-by-step videos <https://www.youtube.com/playlist?list=PL17Fe0ZmhCR-PAuv5pw85vxrtLu5YGeWl>
  - download teacher document <https://education.ti.com/en/~media/b67b71d3a4014e0b92b7b4f10a94fb93.ashx?h=16&thn=1&w=16&rev=0e0f77f1-da07-4580-b755-a2a348830aaa>
  - download teacher project background document <https://education.ti.com/en/~media/7615f1d39c1e453ab1d0d1a5716bed31.ashx?h=16&thn=1&w=16&rev=99076902-846b-4de0-b8aa-5dd6847ded28>
  - download student handout <https://education.ti.com/en/~media/1ab204e95e39476d92da0cc7156a32ba.ashx?h=16&thn=1&w=16&rev=3af338df-0a4c-48fa-8594-366a6c0be212>
  - download zip file with example programs <https://education.ti.com/en/~media/d18a9d69ce9640ed86ff7d55cb3a257.ashx?h=16&thn=1&w=16&rev=11d6de0a-89c7-4421-ba2d-293d883bc914>
- **Four-Chambered Heart** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2860](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2860)
  - Download Heart Build Sheet PDF <https://education.ti.com/en/~media/5c8e40a17dab454bb039f4cd563bed71.ashx?h=16&thn=1&w=16&rev=e526f9bc-e985-4454-9ce6-ed2a52a838d3>
  - Quick demonstration video <https://www.youtube.com/watch?v=PqcsOORAiLO>
- **Smart Irrigation Project** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=1807](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=1807)
  - Blog Post from US Teacher <https://education.ti.com/en/bulletinboard/2022/smartwater>
  - Demonstration Video by TI STEM Team [https://www.youtube.com/watch?v=U3Nf\\_9xvWEs](https://www.youtube.com/watch?v=U3Nf_9xvWEs)
  - Video from High School in Portugal <https://www.youtube.com/watch?v=afvYR8WNTbl>
- **Pet Car Alarm Project** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=1868](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=1868)
  - Demonstration video by TI STEM Team <https://youtu.be/0EgulwSzcDQ>
- **Some Like it Tepid** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2467](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2467)
- **Making Music with Code** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2403](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2403)
  - download teacher document <https://education.ti.com/en/~media/53160ae10eb34f8c9e3b8707ebade80e.ashx?h=16&thn=1&w=16&rev=d201f84e-e4d0-4e40-8ae5-05417eb95160>
  - download student handout <https://education.ti.com/en/~media/41d1300939f1430a9ebb85e99d4de212.ashx?h=16&thn=1&w=16&rev=ce6b43e9-9ddb-48d0-8f0f-5d527196591e>
  - download piano keyboard reference guide <https://education.ti.com/en/~media/397f23785ac34965bc1629b427f18405.ashx?h=16&thn=1&w=16&rev=8b781082-dee9-4a0f-9d9e-4b6ade7db41b>
- **RGB Array Unit 7 of 10 Minutes of Code for TI-Basic TI-Innovator and Rover** <https://education.ti.com/en/activities/ti-codes/84/10-minutes-innovator>
- **STEM Event TI-Innovator Hub and Rover activities** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2986](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2986)

### TI-Rover Projects and Activities

- **Meet the Rover** [https://resources.tistemprojects.com/tistemprojects-home?resource\\_id=3485](https://resources.tistemprojects.com/tistemprojects-home?resource_id=3485)
- **Rover, Watch Out for Rover** [https://resources.tistemprojects.com/tistemprojects-home?resource\\_id=2916](https://resources.tistemprojects.com/tistemprojects-home?resource_id=2916)
- **On-Ramp to Robotics: Unit 1 Motion Mars Challenge** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2078](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2078)
- **On-Ramp to Robotics: Unit 2 Sensing Mars Mineral Challenge** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2402](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2402)
- **Math in Motion Lessons** <https://education.ti.com/en/activities/innovator/math>
- **STEM Event TI-Innovator Hub and Rover activities** [https://resources.tistemprojects.com/tistemprojects-home/?resource\\_id=2986](https://resources.tistemprojects.com/tistemprojects-home/?resource_id=2986)

## Connectivity to handhelds

- **TI Connect CE Software for Mac and Windows.** Transfer files to and from the calculator. Screen Snapshots. Update Handhelds. <https://education.ti.com/en/products/computer-software/ti-connect-ce-sw>
- **TI Connect CE App for Chromebooks** <https://chrome.google.com/webstore/detail/ti-connect-ce-app-for-chr/aokihcpcmdjikebakdanncddpdnkfla?hl=en-US>

## Other Resource

- **TI Codes Lessons and Resources** <https://education.ti.com/en/activities/ti-codes/84>
  - 10 Minutes of Code for TI-Basic <https://education.ti.com/en/activities/ti-codes/84/10-minutes>
  - 10 Minutes of Code for TI-Basic TI-Innovator and Rover <https://education.ti.com/en/activities/ti-codes/84/10-minutes-innovator>
    - RGB Array Unit
  - 10 Minutes of Code Beyond Basics <https://education.ti.com/en/activities/ti-codes/84/beyond-basics>
  - 10 Minutes of Code Teacher's Lounge <https://education.ti.com/en/activities/ti-codes/84/teacher-lounge>
    - Download student handouts
    - See curriculum alignments
- **Path to STEM Projects**, TI-Innovator Hub and breadboard engineering and coding activities that explore analog and digital inputs and outputs, calibration and a feedback and control system. <https://education.ti.com/en/activities/stem/path-to-stem/84-plus-ce>
- **Adventures in Coding and STEM in the Mathematics Classroom (On Demand Webinar)** <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>