

# Get started with STEM projects

Engage students in real-world activities using the TI-Innovator™ Hub and a TI-84 Plus CE graphing calculator

## Step 1: Gather your equipment.

In addition to your TI-84 Plus CE graphing calculator, you'll also need a TI-Innovator™ Hub with TI LaunchPad™ Board. If you do not have one, you can borrow the equipment and supplies needed for the activities below. Go to [TlstemProjects.com](http://TlstemProjects.com), click on the Get Started Now button at the bottom of the page, then fill out the form to begin a conversation with the TI STEM Team. **Note:** If you are using your own equipment, make sure your Texas Instruments technology is [up to date](#).



TI-Innovator™ Hub with TI LaunchPad™ Board

## Step 2: Never coded before? No problem!

You'll need a foundation in creating, running and editing TI-Basic programs with the TI-Innovator™ Hub. For step-by-step instructions, check out [10 Minutes of Code](#) (for the TI-84 Plus CE and TI-Innovator™ Technology). Complete Unit 1, then move on to Step 3 below.



[10 Minutes of Code](#)

## Step 3: You are now ready to do the projects.

The [Digital Mood Ring Project](#) is a great activity to start with. This topic is engaging, and the setup is user-friendly. You will cover foundational concepts of programming and of feedback and control systems. After doing this project, both adults and students have stated that they are ready to do more advanced lessons.

Download the Digital Mood Ring [teacher document](#). Read the introductory materials, and then work through the project challenges. Use the Digital Mood Ring [YouTube videos](#) for step-by-step instructions.

Now that you're comfortable with coding and have completed your first activity, you are ready for these additional TI-Innovator™ Hub projects (follow the links to each project):



[Digital Mood Ring](#)



[Smart Irrigation](#)



[Pet Car Alarm](#)



[Four-Chambered Heart](#)



[Making Music With Code](#)



[Some Like it Tepid](#)

Discover other projects at [TlstemProjects.com](http://TlstemProjects.com). Make sure to download the corresponding teacher documents, and examine the materials as you plan these activities for your students.

Contact [stem-team@ti.com](mailto:stem-team@ti.com) with questions or comments.