STEM INNOVATION LAB DISPATCH

Notes from the Lab

I am very excited to welcome you to NASA's new STEM Innovation Lab. The lab is a hybrid thinktank and makerspace where we invite NASA scientists, engineers and educators to explore and share ideas using educational technology. How can that impact you? Our main purpose is to bring the ideas developed in the lab to you so that you can further explore and incubate them into your own space! Just imagine how empowering it would be to infuse authentic NASA science and engineering content into your new or existing space. The STEM Innovation Lab newsletter's goal is to send the latest from the lab straight to your inbox.

Each newsletter will arrive in your email in the form of a short 'Dispatch' featuring a STEM Innovation Lab expert and at least one new project called an 'Exploration Idea Profile'. You will also receive related quick 'maker' ideas from one of our NASA engineers, scientists, educators, writers, graphic artists and others, as well as the latest blogs and more from the lab.

To get started, I'd like to highlight one of our new 'Exploration Idea Profiles' that combines NASA data and wifi-enabled lighting to instantly allow your space to visually respond to changes in selected NASA data. All you need are a few wifi-enabled lights, a small single-board computer (Raspberry Pi) and a desire to code!

Thank you,

Troy Cline
STEM Innovation Lab Director
NASA Goddard Space Flight Center

Featured Profile

By using the coding language Python, a small single-board computer, and wifi-enabled lighting, you can change the colors of the lights in your space based on disturbances to the Earth's magnetic field.

Read the profile and access our code here.

Explore These Ideas

You can use wifi-enabled lighting to visualize data as it occurs–everything from auroras to the latest related tweets—by modifying the provided code.

You don't have to use strips of lights to fill your entire space. Start small—just use one lightbulb in the corner of the room to alert you to new data.

Put a screen up next to the lights so you can watch data come in and then see the lights alert you to that data. Our suggestion: have your lights change color every time a new NASA STEM Innovation Lab Dispatch arrives!

In The News

The 5 Questions Attendees Asked Us Most Often At ISTE

When we attended ISTE in Philadelphia, we were asked so many wonderful questions about what we're doing in the STEM Innovation Lab. Recently, we addressed the most common questions on our blog.

How ISTE and NASA Work Together

NASA and ISTE often collaborate to share the latest space science discoveries. Here, ISTE shares NASA resources that educators can incorporate into their spaces.