



PI-TOP STEAM PROJECT IDEAS

01. Introducing FURTHER
02. Project ideas for computer science class
03. Free Raspberry Pi Resources for Computer Science Project-Based Learning

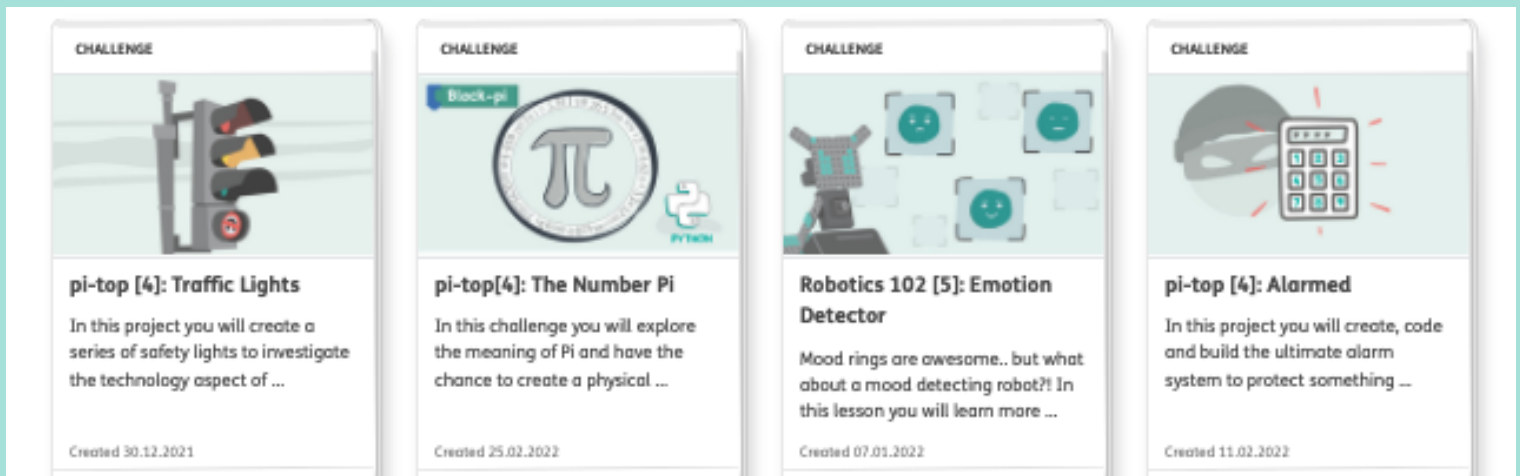
Project-based learning (PBL) helps students acquire a deeper understanding of concepts by actively participating in real-world challenges. And as a bonus, PBL not only helps to build knowledge of curriculum but also helps students develop key skills, such as autonomous study habits, self-assessment skills and time planning!



01. Further challenges to engage all students...



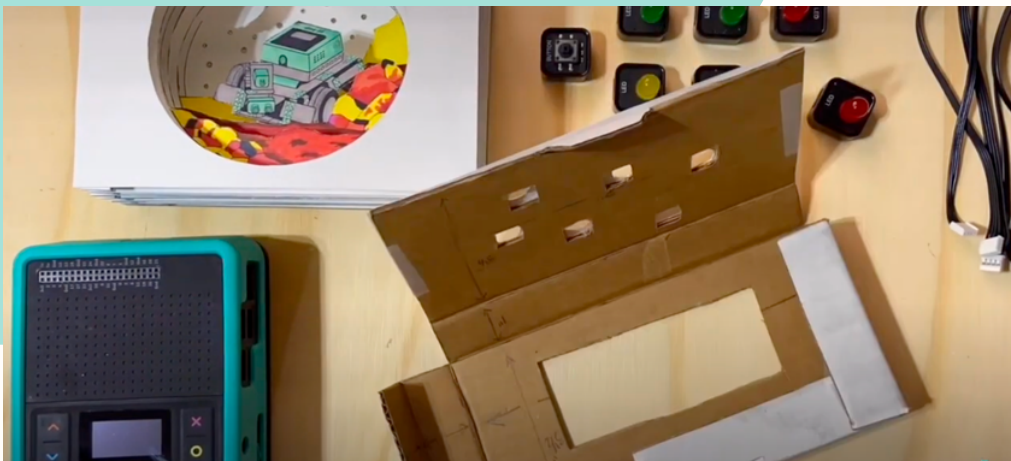
Some students are nervous about computer science but hands-on projects are a great way to get them excited. On Further, you can find ideas to apply CS to topics of fine art, sport, psychology or geography- the possibilities are truly endless! Visit Further now and find your next class project



02. Project ideas for your next class...

a) Rover Tunnel Card Project

In this STEAM focused challenge, you will create and build an interactive tunnel card! Use your creativity to customize the card, become an engineer and construct the LED base, then finalize the rover's world by programming LED visual effects initiated with the press of a button.



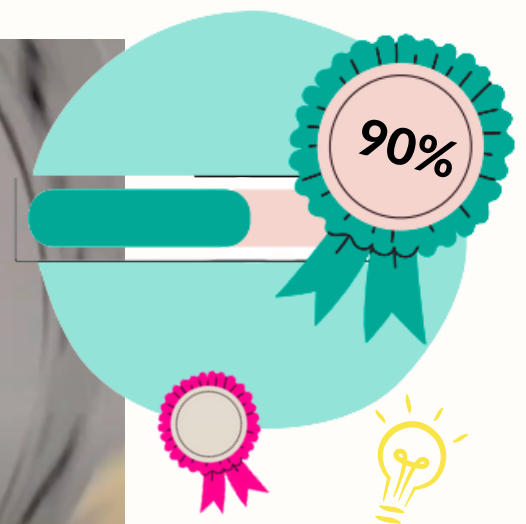
b) Fairground Carousel Project

In this STEAM focused challenge, you will create a motorized carousel! Use your creativity to customize the project, become an engineer and construct the carousel with the intricate base, then finalize the prototype by programming LED visual effects and motion.



c) Zoetrope Animation Project

In this STEAM focused challenge, you will create and build a motorized zoetrope! Use your creativity to design the animation, become an engineer and construct the device, then finalize the project by programming a motor to turn the zoetrope! In this challenge on Further, you'll also learn about the history of the zoetrope before making your own.



03. Raspberry pi resources for PBL computer science

There are some great free STEAM resources available to you when you use our pi-top devices in your classroom. The pi-top [4] uses a Raspberry Pi “brain” to help teachers start implementing engaging computer science lessons quickly and easily. You can look online for a wide range of projects for all ages and skill level, or take a peek at some of our favorite project lists below:

- [Raspberry Pi Projects](#)
- [Adafruit’s free Raspberry Pi projects](#)
- [Instructable’s Raspberry Pi Projects](#)
- [pi-top’s 15 Cool Projects You can Make with Your pi-top \(Part 1\)](#)
- [pi-top’s 15 Cool Projects You can Make with Your pi-top \(Part 2\)](#)

Also make sure you tune in to our informative webinars aimed at inspiring & supporting educators in their pi-top journey!
[Watch our past webinars now.](#)



Interdisciplinary Learning

When something is learned in the real world there is always at least one connection to a different field. Why should learning in the classroom be any different?



Engaging Students with Technology

Technology is a wonderful way to maximize student engagement! In this webinar we will focus on ways to use technology to boost student interest in traditional classroom subject matter.