

Here are some defensive coding tips

These are tips and tricks that you can use while coding to prevent bugs in the first place

First make it work,
Then make it clean.

do you have a bug?

defense

yes!

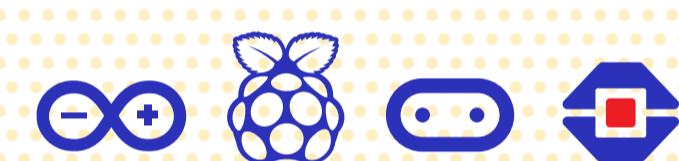
Are you panicking?

Breathe. Rushing to fix bugs will create more bugs! Take a water fountain break.

Can you describe your project?

You'd be surprised to see how you can spot bugs by methodically laying out the details of your project.

Are you working with hardware?



yes!

Is everything "plugged-in"?

Make sure that all your "dependencies" are functioning. Dependencies are parts of the project that rely on aspects beyond the code you write. Everything from the Wi-Fi to a plug-in like p5.js

preparation

What was the last thing you changed?

If you can track the last change before the bug appeared, that will most likely be the source of the problem. Remember to test often to find bugs as early as possible

Try not to add to your code.

Building code on top of bugs can cause way more problems than it solves. If you have to change the code, only ever turn one part of the code off at a time.

production

Read your code out loud.

Every last ; < (and /n. Reading your code a loud will help you catch both syntax and logical mistakes.

Read the error messages.

Try to break apart the error message and understand what it's trying to tell you. Typically the first/top error message is what caused the bug. If that's not working, copy and paste the error message into Google, and check sites like StackOverflow. You're definitely not the only person to encounter your bug

Write your own error messages

Use console logging functions to create descriptive messages to see how the program is interpreting variables and functions.