Experimenters' Corner:

The Bodger's Guide to GitHub

Why GitHub, and why the strange name?

If you have tried following one of my project links recently, you might have felt like you were dropped into the middle of a software engineer's workbench.

First, let's clear the air on the name. **Git** was created in 2005 by Linus Torvalds (the creator of Linux). In standard British slang, a "git" is a minor nuisance or an unpleasant person. Linus, known for his self-deprecating humor, named it after himself. **GitHub** is simply a website that hosts files managed by Git; it's a hub for Git.

For software developers, GitHub is a complex tool for collaboration, branching code into parallel universes, and tracking every tiny change made by dozens of people.

For us in Experimenters' Corner, GitHub is simply a digital filing cabinet.

You do not need to install "Git for Windows." You do not need to register a GitHub account. You do not need to learn what a "branch," "fork," or "commit" is. You just want the source code and the documentation onto your computer so you can program your Arduino.

Here is the zero-fuss, three-click method to grab everything you need from any Experimenters' Corner repository.

Step 1: Arrive at the Repository

When you type the web address printed in RadCom (or click the link in the digital edition), you will land on the project's **Repository** page (often called a "repo").

Think of a repository as the root folder for that specific article's project. Inside, you will see a list of files: `.ino` files for the Arduino code, `.pdf` or `.md` files for requirements, and perhaps `.png` images of schematics.

```
project-folder
├── README.md       <-- The project overview and notes
├── Schematic.pdf   <-- Wiring diagram
└── src
    └── sketch.ino  <-- The Arduino code
```

Below the list of files, you will usually see a text section titled **README.md**. GitHub automatically displays this file on the main page.

Step 2: Download the Complete Zip File

Instead of trying to open files individually and copying text (which can corrupt line endings or introduce invisible character errors), download the entire filing cabinet in one go:

1. Look near the top right of the file list for a green button labeled `< > Code`.
2. Click the green `< > Code` button. A small menu will pop open.
3. Ignore options about "Cloning", "HTTPS", or "GitHub Desktop"
4. Look at the bottom of that popup menu and click **Download ZIP**.

```
┌──────────────────────────────────┐
│    [   < > Code     ▼ ]          │
└──────────────────────────────────┘
      │
      ├─ Local / Cloud options (Ignore)
      │
      └─ [ 📦 Download ZIP ] <-- CLICK THIS
```

Your web browser will instantly download a single compressed file containing every single code file, document, schematic, and image from that repository.

Step 3: Extract and Open

Once the ZIP file is in your computer's `Downloads` folder, do not open the Arduino sketch directly from inside the ZIP file. The Arduino IDE requires sketches to live in an uncompressed folder of the exact same name.

1. Right-click the downloaded `.zip` file (e.g., `RadCom-SWR-Meter-main.zip`).
2. Select Extract All... (Windows) or double-click it (Mac).
3. Choose a folder on your computer (like your `Documents/Arduino` folder) and extract.
4. Open the newly extracted folder, navigate to the `.ino` file, and double-click it.

Your Arduino IDE will open, the code will be intact, and you are ready to compile and upload.

Troubleshooting Common Issues

- **"Arduino says the sketch must be in a folder with the same name!"** If you download a raw file directly instead of using the ZIP method, Arduino might complain. Simply let the IDE automatically move it into a matching folder; it will do this automatically for you.

- **"I get compilation errors about missing libraries!"** The code from the repository is usually fine, but your local Arduino IDE might be missing external libraries used in the project (like an OLED display driver or an RF generator library). Check the #include statements at the top of the code section of the Arduino file; they will all be listed there and can be added to your setup through `Sketch -> Include Library -> Manage Libraries...`

- **"Do I ever need an account?"** Only if you want to write back to me on GitHub to report a bug in my code. If you just want to build the project on your bench, you never need to sign in.