

## Tools and VS Code extensions

Prepared for TechnoPro, Inc. / Hands-on AI-Assisted Development (IT track and Mechanical and Electrical track) / July 24, 2026 Giverty, Inc.

**Python is not used.** The course is completed with VS Code + GitHub Copilot + a browser alone. All of the extensions below **go into the user area, so installing them needs no administrator rights**. The components used for data processing are bundled in our handouts, so no separate installation is needed.

### Required Without these, the course cannot take place

| Name                                         | Extension ID        | Description and links                                                                                                                                                                                                                                                                                   |
|----------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#"><u>VS Code (application)</u></a> | —                   | <b>1.116 or later</b> recommended. From this version, GitHub Copilot Chat is built in, so no extra extension is needed                                                                                                                                                                                  |
| <a href="#"><u>GitHub Copilot Chat</u></a>   | GitHub.copilot-chat | The Copilot core that handles chat, inline suggestions and agent. <b>VS Code 1.116 and later include it as standard, so no installation is needed.</b> Specify this ID only if you distribute an earlier version (the Marketplace version is for older VS Code and has not been updated since May 2026) |

**Note:** The old "GitHub Copilot" extension ( `GitHub.copilot` ) stopped receiving updates after October 2025, and its features were merged into Copilot Chat. It is still listed on the Marketplace, but **you do not need to add it to a distribution list**.

### Recommended The hands-on course works better with these

| Name                                          | Extension ID                     | Description and links                                                                                                        |
|-----------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <a href="#"><u>Japanese Language Pack</u></a> | MS-CEINTL.vscodelanguage-pack-ja | Not needed for the English course. Keep the VS Code display language in English.                                             |
| <a href="#"><u>Rainbow CSV</u></a>            | mechatroner.rainbow-csv          | Shows CSV columns in different colors. You can <b>check column shifts by eye</b> in the results the AI cleaned up            |
| <a href="#"><u>Edit CSV</u></a>               | janisdd.vscodelive-csv           | Opens a CSV <b>as a table like Excel</b> so you can check and fix it. Its role differs from Rainbow CSV, so you can use both |

For CSV, we recommend **using both**. Use Rainbow CSV to check column shifts by color, and Edit CSV to look at the contents as a table. They help in the data preparation hands-on of the Mechanical and Electrical track.

### Nice to have Depending on use

| Name                                | Extension ID          | Description and links                                                               |
|-------------------------------------|-----------------------|-------------------------------------------------------------------------------------|
| <a href="#"><u>Live Preview</u></a> | ms-vscode.live-server | Previews the HTML you created inside VS Code. Official Microsoft extension          |
| <a href="#"><u>Markdown PDF</u></a> | yzane.markdown-pdf    | Converts reports to PDF. <b>The setting must be distributed</b> (see the next page) |

## Installation methods and items to confirm

These are the points where problems are likely on a closed company network.

### Installation methods (2 ways)

| Method                             | Description                                                                                                                       |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Participants install it themselves | Search for the name in the Extensions view of VS Code and install. <b>Network access to the Marketplace must be allowed</b>       |
| Your company deploys in advance    | If the Marketplace is blocked, you can distribute the extension files (.vsix) and install them all at once with the command below |

```
code --install-extension MS-CEINTL.vscode-language-pack-ja
code --install-extension mechatroner.rainbow-csv
code --install-extension janisdd.vscode-edit-csv
code --install-extension ms-vscode.live-server
code --install-extension yzane.markdown-pdf
```

### Settings if you use Markdown PDF

This extension uses a browser to convert files to PDF. If you do not point it to the Edge already installed on the PC, it tries to download a browser for the conversion, which may fail on a company network. Please distribute the following setting together with the extension.

```
"markdown-pdf.executablePath": "C:\\Program Files (x86)\\Microsoft\\Edge\\Application\\msedge.exe",
"markdown-pdf.chromium.autoDownload": false
```

The path above is where Edge is normally installed. Adjust it to match your environment, and **try the PDF conversion on one PC before the course.**

## Allowing network access and items to confirm

The course cannot take place if this is blocked. Please check it in advance.

### Allowing network access (most important)

GitHub Copilot connects to the cloud. If the connection is blocked, **nobody can sign in and the course cannot take place**. Please run a connection check in advance. The source is the official GitHub page "Copilot allowlist reference" (checked on July 30, 2026).

| Hosts to allow                                                                                   | Purpose                                                                                     |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| github.com/login/*                                                                               | Sign-in and authentication                                                                  |
| api.github.com/user<br>api.github.com/copilot_internal/*                                         | Account and license check                                                                   |
| copilot-proxy.githubusercontent.com<br>origin-tracker.githubusercontent.com                      | Relay for inline suggestions and chat                                                       |
| *.githubcopilot.com/*                                                                            | Copilot core (inline suggestions, chat, agent)                                              |
| *.individual.githubcopilot.com<br>*.business.githubcopilot.com<br>*.enterprise.githubcopilot.com | Hosts by plan                                                                               |
| default.exp-tas.com                                                                              | Feature flags                                                                               |
| collector.github.com/*<br>copilot-telemetry.githubusercontent.com/telemetry                      | Telemetry                                                                                   |
| *.githubassets.com / *.githubusercontent.com                                                     | Needed to show the sign-in screen (mentioned as a supplement in the official documentation) |
| marketplace.visualstudio.com                                                                     | Installing extensions (if participants install them themselves)                             |

### Other items to confirm

- The VS Code version you distribute (from 1.116 onward, you do not need to install the Copilot extension)
- How the extensions are installed (participants install them themselves, or your company deploys them in advance)
- Participant email list (company addresses), to be provided by the first day (used for the Copilot invitations on the day)