**Git Merge Operation**

### ****Git Merge:****

Merging is the process of combining changes from one Git branch into another — especially useful when you're adding features or testing hardware modules separately

**Steps to Merge:**

**git checkout main # switch to your main firmware branch**

**git merge sensor-code # merge the sensor feature branch**

**When Conflicts Happen**

**Git shows conflict markers:**

<<<<<<< HEAD

old code

=======

new code

>>>>>>> sensor-code

**You fix the code manually**

**Then do:**

git add .

git commit

### ****Why Merge Is Important:****

* Enables collaborative development
* Maintains clean version control
* Integrates multiple feature branches