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If you want to add LEAF to an STM32 System Workbench (or STM32CubeIDE) project

A) In terminal, go to the root of the stm32 repo / branch you want to start from. You should be next to "Inc" and "Src" folders for the project. Then:

```
git submodule add https://github.com/spiricom/leaf  
git submodule update --remote --recursive (not even technically necessary first time)
```

Then whenever you update LEAF external of the project and want to pull in changes you just need to run "git submodule update --remote --recursive" again.

You will likely get an error that it can't add leaf because it already exists: in this case you can run

```
git rm -r --cached leaf
```

And then **delete the leaf folder in the finder** if it's still there. Then try git submodule add again.

B) Add LEAF to your SystemWorkbench STM32 project:

- 1 - Go to Project => Properties => C/C++ General => Paths and Symbols => Includes.
If you already see "LEAF" in the list, then delete it.
- 2 - Hit the "Add..." button next to "Include Directories".
- 3 - Select "Add to all configurations", "Add to all languages", and "[] is a workspace path" (this makes path relative to project not absolute).
- 4 - Then click "Workspace..." and navigate through directories of project to select leaf/leaf (where leaf.h lives). Hit OK. Hit Apply. Close Properties menus. *(If the leaf folder is empty in your project even though in the filesystem you know it is there, cancel out of this process and right click on the project folder inside the project explorer and select "refresh". This will update System Workbench's internal understanding of the folder layout).*
- 5 - Select and right-click the leaf/leaf/Inc folder. Hit Properties. If it is checked, untoggle "Exclude resource from build." Do the same for leaf/leaf/Src folder. Also the leaf.h file. (might not be necessary)
- 6 - At this point, you should be able to #include "leaf.h" anywhere in the project and build stuff!

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TROUBLESHOOTING:

If your project can't see "leaf.h", try re-adding the */leaf/LEAF as in step 2:

- Go to Project => Properties => C/C++ General => Paths and Symbols => Includes.
- Select the added */leaf/LEAF folder and hit "Delete."
- Then proceed to step 2 in section **B** above.

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