Altium Setup for Arduino Project

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# To Setup the Arduino Project on Workspace (Quick Reference)

1. Unzip and Organize Project and Library Files and Folders.
   1. Unzip ECEN430\_Altium\_Arduino\_Uno\_S24.zip
   2. Copy the folder KBS\_Arduino\_Uno\_Project.
   3. Paste it in the folder %UserDefault%\Desktop\ECEN430\Altium\.
   4. Rename KBS\_Arduino\_Uno\_Project to KBS\_Arduino\_Uno\_Project\_Lxx   
      where xx is your bench number.
   5. Open the folder KBS\_Arduino\_Uno\_Project\_Lxx.
   6. Rename KBS\_Arduino\_Uno\_Project to KBS\_Arduino\_Uno\_Project\_Lxx  
      where xx is your bench number.
   7. Create a subfolder Libraries in the KBS\_Arduino\_Uno\_Project\_Lxx folder.
   8. Copy the integrated library KBS\_Arduino\_Uno\_Library.IntLib
      1. Located in Subfolder .\KBS\_Arduino\_Uno\_Library\Project Outputs for KBS\_Arduino\_Uno\_Library
   9. Paste it in the Libraries folder created above.
2. Open KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb as a local project in Altium Designer.
3. Add the Integrated Library to the Project.
   1. Right click KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb.
   2. Select Add Existing to Project.
   3. Browse to %UserProfile%\Desktop\ECEN430\Altium\KBS\_Arduino\_Uno\_Project\_Lxx\Libraries.
   4. Select All files (\*.\*) for the file type.
   5. Select KBS\_Arduino\_Uno\_Library.IntLib.
   6. Select Open.
   7. Select File > Save All.
4. Make Project Available Online
   1. Right click KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb.
   2. Select Make Project Available Online.
   3. Select Advanced.
   4. Select … to browse.
   5. Expand ECEN430\_S24 in the Choose Folder dialog box.
   6. Select Lxx where xx is your assigned bench (e.g., L01).
   7. Select OK to close the Choose Folder dialog box.
   8. Select OK to close the Make Available Online dialog box.
   9. Select Close to close the Project Available in Altium 365 Workspace.
5. Set Share Permissions: Add ECEN430\_Lxx can Edit and Remove Workspace
   1. Open Explorer panel.
   2. Expand ECEN430\_S24 > Lxx where xx is your bench number.
   3. Select KBS\_Arduino\_Uno\_Project.
   4. Select Share.
   5. Select Shared with:.
   6. Enter and select ECEN430\_L16
   7. Select Can Edit.
   8. Select Share to close Share dialog.
   9. Select Who has access .
   10. Select Remove for Workspace Can Assess.
   11. Select Save.
   12. Select OK to close Share “KBS\_Arduino\_Uno\_Project.”

# To Setup the Arduino Project on Workspace (Detailed)

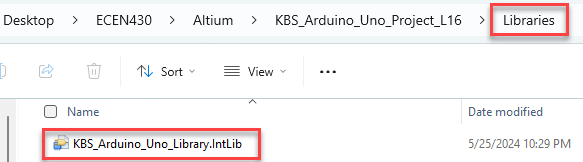
## Unzip and Organize Project and Library Files and Folders

1. Download and Unzip ECEN430\_Altium\_Arduino\_Uno\_S24.zip.
2. Copy the folder KBS\_Arduino\_Uno\_Project.
3. Paste it in the folder %UserDefault%\Desktop\ECEN430\Altium\.
4. Rename KBS\_Arduino\_Uno\_Project to KBS\_Arduino\_Uno\_Project\_Lxx   
   where xx is your bench number.
5. Open the folder KBS\_Arduino\_Uno\_Project\_Lxx.
6. Rename KBS\_Arduino\_Uno\_Project to KBS\_Arduino\_Uno\_Project\_Lxx  
   where xx is your bench number.
7. Create a subfolder named Libraries in the KBS\_Arduino\_Uno\_Project\_Lxx folder.

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1. Copy the integrated library KBS\_Arduino\_Uno\_Library.IntLib
   1. Located in the unzipped subfolder .\KBS\_Arduino\_Uno\_Library\Project Outputs for KBS\_Arduino\_Uno\_Library
2. Paste it in the Libraries folder created above.



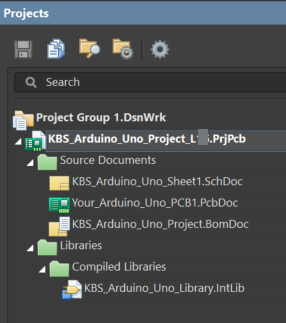
## Open KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb as a Local Project

1. Start Altium Designer.
2. Sign in and Use License.
3. Select File > Open Project.
4. Select Local File.
5. Select Browse.
6. Browse to %UserProfile%\Desktop\ECEN430\Altium\KBS\_Arduino\_Uno\_Project\_Lxx.
7. Select KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb.
8. Select Open.

## Add the Integrated Library to the Project

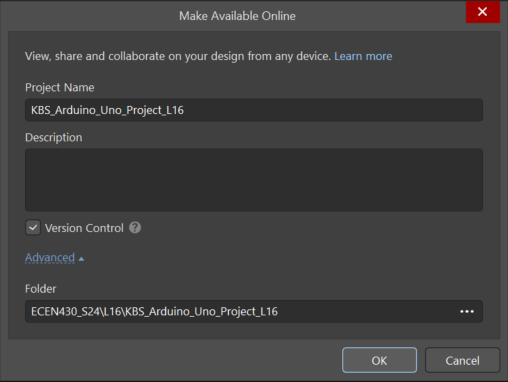
1. Right click KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb.
2. Select Add Existing to Project.
3. Browse to %UserProfile%\Desktop\ECEN430\Altium\KBS\_Arduino\_Uno\_Project\_Lxx\Libraries.
4. Select Library file (\*.intlib;\*.lib;\*.schlib;\*.pcblib) for the file type.
5. Select KBS\_Arduino\_Uno\_Library.IntLib.
6. Select Open.
7. Select File > Save All.

The project should now look like this:



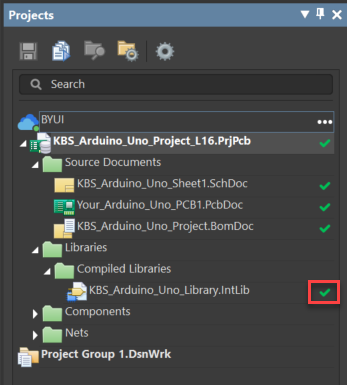
## Make Project Available Online

1. Select Workspace 
2. Right click KBS\_Arduino\_Uno\_Project\_Lxx.PrjPcb.
3. Select Make Project Available Online.
4. Select Advanced.
5. Select … to browse.
6. Expand ECEN430\_S24 in the Choose Folder dialog box.
7. Select Lxx where xx is your assigned bench (e.g., L01).
8. Select OK to close the Choose Folder dialog box.



1. Select OK to close the Make Available Online dialog box.
2. Select Close to close the Project Available in Altium 365 Workspace.

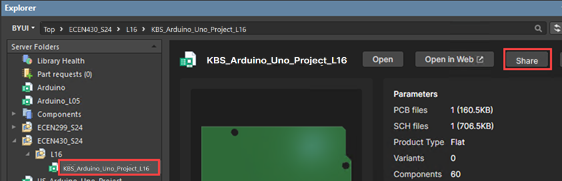
The Projects panel should look like this:



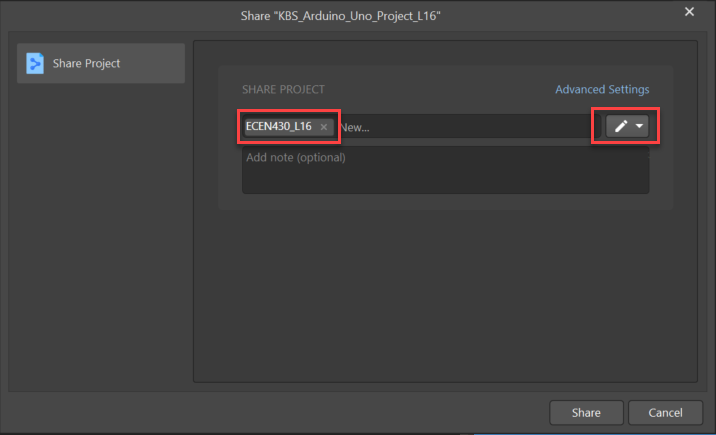
Notice the green check next to .IntLib indicating that the library is also saved to the server.

## Specify Online Project Share Settings

1. Open Explorer panel.
2. Expand ECEN430\_S24 > Lxx where xx is your bench number.
3. Select KBS\_Arduino\_Uno\_Project\_Lxx.
4. Select Share.



1. Select Shared with:.
2. Enter and select ECEN430\_L16
3. Select Can Edit.

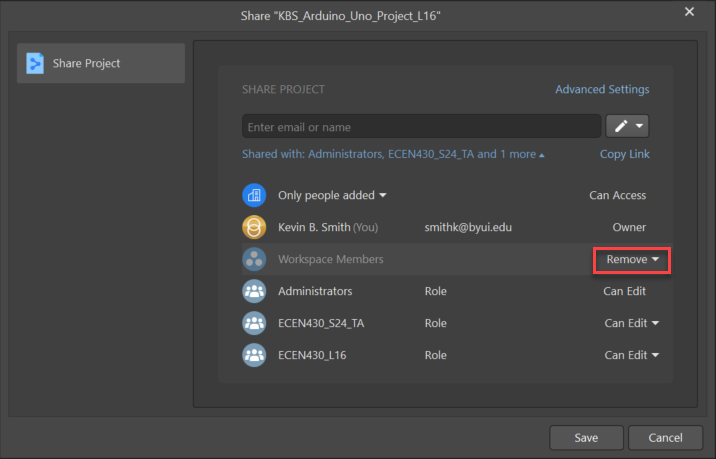


1. Select Share to close Share dialog.
2. Select Who has access .
3. Enter ECEN430\_S24\_TA.
4. Select Can View.

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1. Select Share to close Share dialog.
2. Select Who has access .
3. Select Remove for Workspace Can Assess.



1. Select Save.
2. Select OK to close Share “KBS\_Arduino\_Uno\_Project\_Lxx.”

# To Open an Existing Online Project (Quick Reference)

1. Set Local Path
   1. Setup System Preferences  > Data Management > Design Repositories > Properties.
   2. **Browse** to the Local Path (e.g., %UserProfile%\Desktop\ECEN299\Altium).
   3. (The folder must exist. If you want a fresh copy, verify that the folder is empty of the project to download)
2. Set Active Server .
3. Browse to and Open online project.
   1. Open Explorer panel.
   2. Select Online Project to open.
   3. Select Open 

# To Open an Existing Online Project (Detailed)

## Set Local Path

1. Start Altium Designer.
2. Sign in and use license.
3. Select Setup System Preferences icon.

A screen shot of a computer

Description automatically generated

1. Select Data Management > Design Repositories.
2. Select Properties.
3. **Browse** to the Local Path (e.g., %UserProfile%\Desktop\ECEN430\Altium).
4. (The folder must exist. If you want a fresh copy, verify that the folder is empty of the project to download)

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1. Select OK to close Git Repository.
2. Select OK to close Preferences.

## Set Active Server

1. Open Altium Designer, Sign in, and Choose a license.
2. Select BYUI as you active workspace server.

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## Browse to and Open Project

1. Select Panels > Explorer.
2. Expand your Shared Team Folder (e.g., L16)
3. Select the project (e.g., KBS\_Arduino\_Uno\_Project\_L16).
4. Select Open.

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The Projects panel should look like:

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# To Edit a Component in the Integrated Library

1. Right click on the integrated library.
2. Select Extract Sources.

(You can also just double click on the Integrated Library, but only do it once or you will get multiple copies.)

A library package project is created locally where the integrated library is located.

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1. Right click KBS\_Arduino\_Library.LibPkg.
2. Select Save.

A Save As dialog box opens.

Use the default location of

%UserProfile%\Desktop\ECEN430\Altium\KBS\_Arduino\_Uno\_Project\_L16\Libraries\KBS\_Arduino\_Uno\_Library

1. Select Save to close the Save As dialog box.

## Edit SchLib

1. Open KBS\_Arduino\_Uno\_Library.SCHLIB.
2. Open SCH Library panel.
3. Select and edit the desired items.

## Edit PcbLib

1. Open KBS\_Arduino\_Uno\_Library.PcbLib.
2. Open PCB Library panel.
3. Select and edit the desired items.

## Recompile Integrated Library

1. Open ProjeSelect Panels > Projects.
2. Select File > Save All.
3. Right click KBS\_Arduino\_Uno\_Library.LibPkg.
4. Select Compile Integrated Library xxx.LibPkg.

## Replace old Integrated Library with Recompiled One

1. Right click KBS\_Arduino\_Uno\_Library.LibPkg.
2. Select Explore.

A File Explorer opens.

1. Open “Project Outputs for KBS\_Arduino\_Uno\_Library” folder.
2. Right click on KBS\_Arduino\_Uno\_Library.IntLib.
3. Select Copy.
4. Back up two levels to the Libraries folder, i.e.,  
   %UserProfile%\Desktop\ECEN430\Altium\KBS\_Arduino\_Uno\_Project\_Lxx\Libraries.
5. Right Click and select Paste.
6. Select Replace the file in the destination.

### Save to Server

1. Go back to Altium Designer.
2. Open Projects panel if it is not already open.
3. Rick click KBS\_Arduino\_Uno\_Project\_Lxx.PrjPrb.
4. Select History & Version Control > Refresh.
5. Select Save to Server.

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A Save dialog box opens.

1. Enter “The integrated library was updated.” as a comment.

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Description automatically generated

1. Select OK to close.

The Project panel now shows that the files are synchronized.

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Description automatically generated

# To Synchronize Integrated Library on Another Computer

1. Right click KBS\_Arduino\_Uno\_Project\_L16.PrjPcb.
2. Select History & Version Control > Refresh.

The Project panel now appears as:

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Description automatically generated

1. Select Update Project from Server.

The Integrated Library is now updated on the local computer and the Project panel appears as:

A screenshot of a computer

Description automatically generated

# Update Schematic to new Integrated library

1. Select Panels > Components.
2. Select Operations .
3. Select Library Preferences.

Verify:

A screenshot of a computer

Description automatically generated

1. Select Close.
2. Open Projects panel.
3. Open KBS\_Arduino\_Uno\_Sheet1.SchDoc.
4. Set filter on only components.

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1. Select all components on the sheet.
2. Right Click a component.
3. Select Find Similar Object.
4. Select Object Kind: Part.

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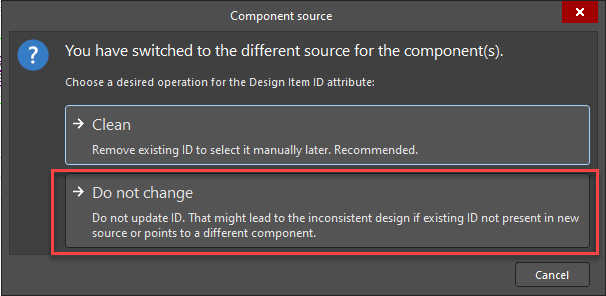
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1. Select OK.
2. Select Source.
3. Select KBS\_Arduino\_Uno\_Library.IntLib.

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1. Select Do not change.



1. Select File > Save All.
2. Select Save to Server.
3. Add comment.

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Description automatically generated

1. Select OK to close save.

The Projects panel should look like:

A screenshot of a computer

Description automatically generated