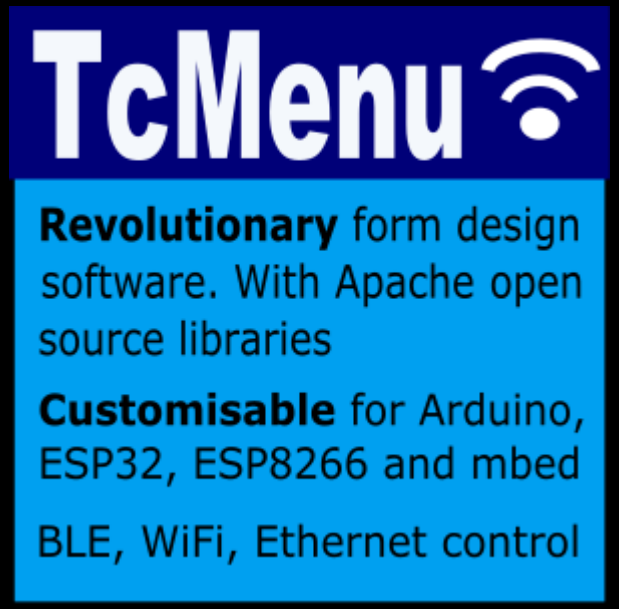
GETTING STARTED WITH TCMENU

1. What is tcMenu and how is it structured?
2. How tcMenu stores menu structures
3. Getting started with the designer
4. Worked example, building a simple LED control system
5. Generating for Uno using DfRobot shield



tcMenu has a support forum too where you can ask questions
https://www.thecoderscorner.com/jforum

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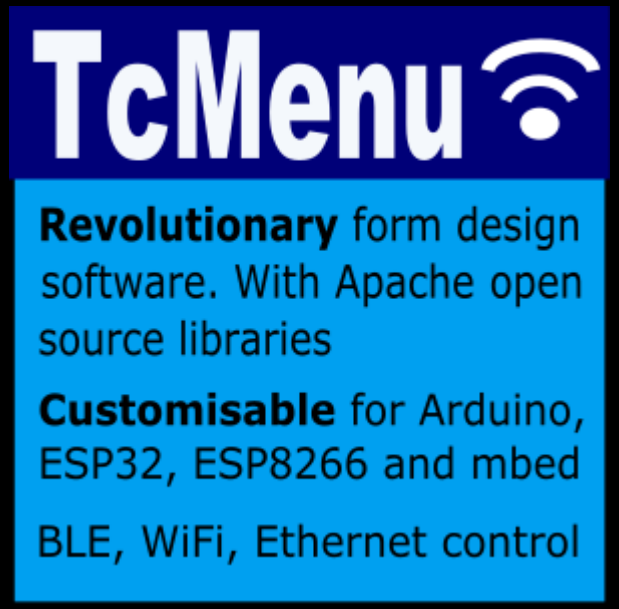
GETTING STARTED WITH TCMENU

There is no way to completely hide the complexity in tcMenu.
It is appropriate for intermediate to advanced Arduino/mbed developers, and experienced embedded systems developers.



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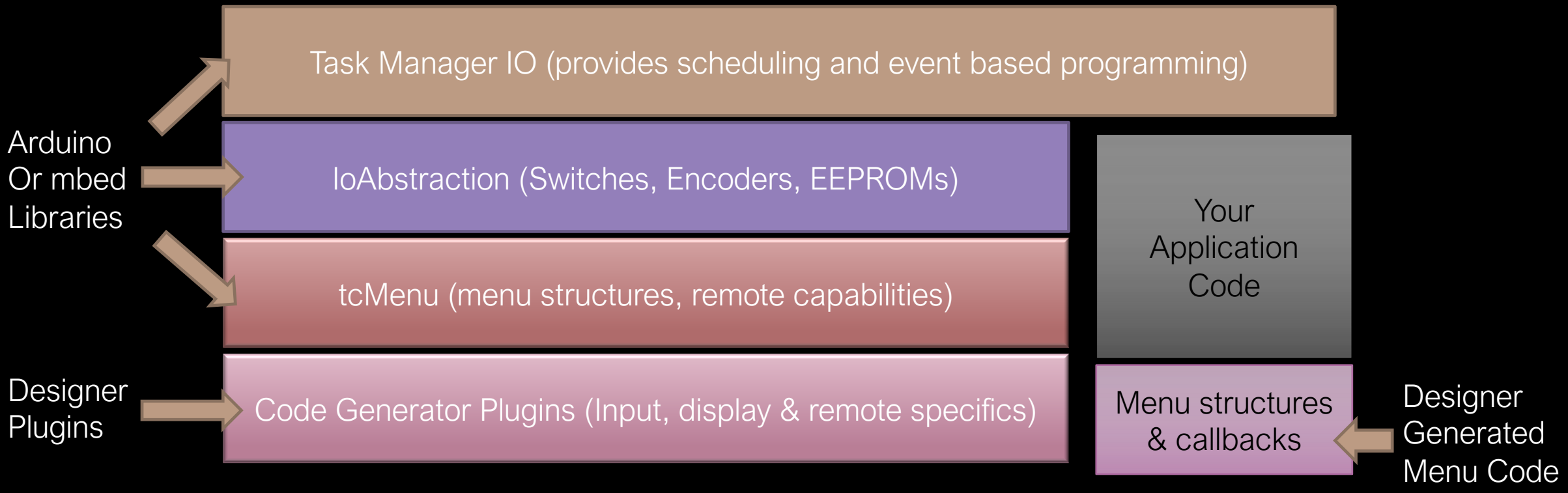
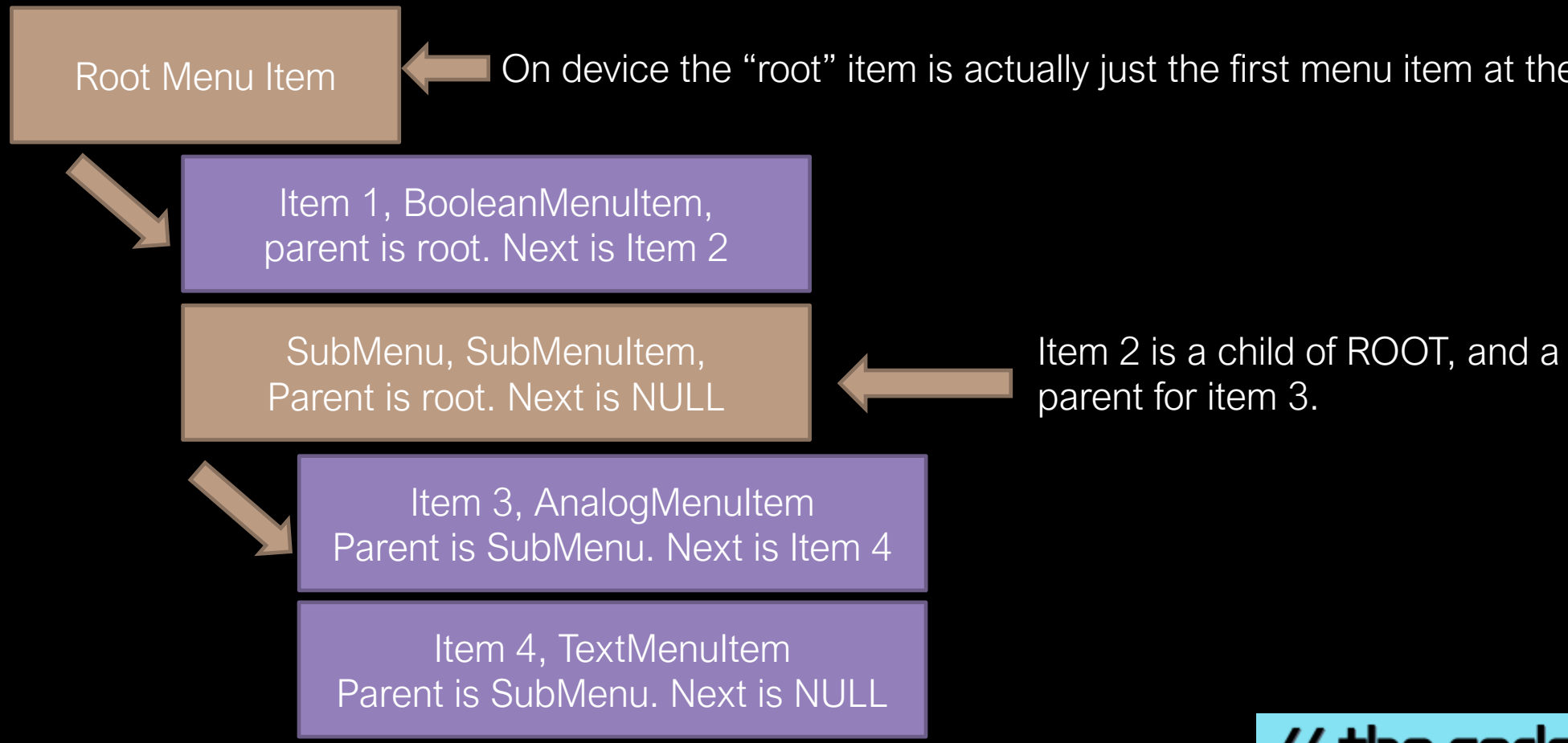
WHAT IS TCMENU?

tcMenu is actually a series of libraries for Arduino or mbed that provide the core support for building event driven embedded applications. Designer combines these with a few “plugins” for the display, input and remote capabilities, and along with your menu structure this gives you the basis to build your application.



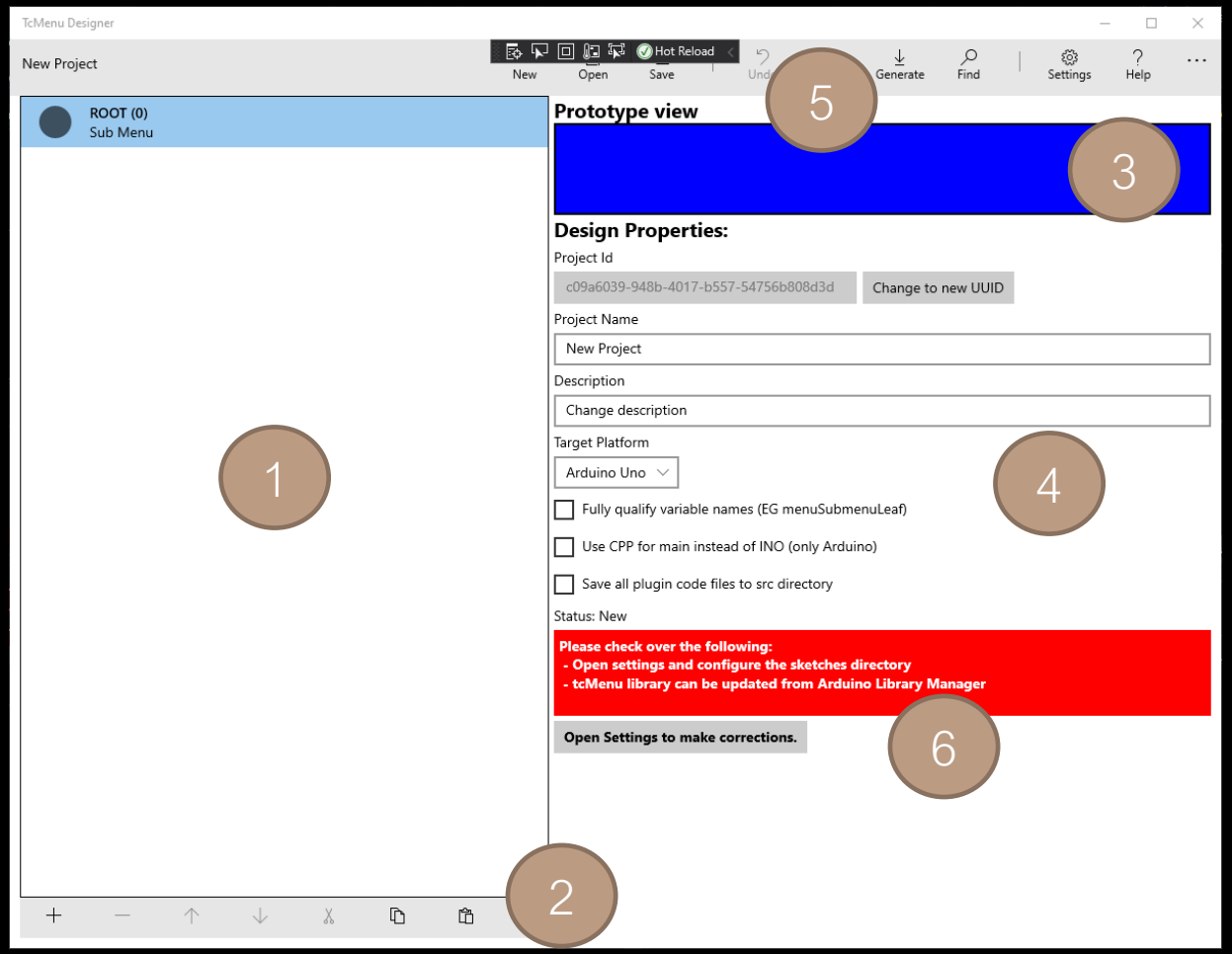
HOW TCMENU STORES MENU STRUCTURES

When you build menus in tcMenu, they are stored in a tree structure. This means that there is a “root” element at the top level, followed by branches and leaves. The whole structure is represented as linked lists of menus, where each menu has a reference to the next item, and each submenu has a reference to the first child item.



GETTING STARTED WITH THE DESIGNER

When you first start the designer, you need to set up a few things, and familiarise yourself with its controls. The most important things that need doing to make it work are in the red box (6). Mainly these are to set up the sketches directory (for most people the Documents/Arduino directory), doing this sets libraries automatically. If this is the first time you've used tcMenu, install it from your Arduino IDE's library manager.



1. Shows the menu items you've created in a tree
2. Contains the controls for editing menu items
3. Shows an approximate rendering of the menu
4. Shows either the information about the whole menu when ROOT is selected, or the properties for the selected item.
5. On Windows the toolbar, on MacOS the menu bar, generation options are available here.
6. A to-do list of things you need to do in order for the designer to work properly.

TCMENU – RUN DESIGNER FOR THE FIRST TIME.

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TCMENU - BUILDING A SIMPLE MENU.

LED Control System
- LED Brightness 0..100%
- Builtin LED (On / Off)
- Settings
  - Backlight (On / Off)

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TCMENU – ACCESS MENU ITEMS IN CODE.

- Within code you can include <projectName>_menu.h and you'll get access to all the menu items, any remote control classes, and also the display renderer.
- Each menu-item that you create results in a variable based on the name, and if fully qualified naming will include the parent item names too.
- For example if we have a submenu called 'Settings', containing an item called 'Brightness'. With fully qualified naming it would generate 'menuSettingsBrightness', without fully qualified naming it would be 'menuBrightness'.
- Any callback functions that you declare while creating the menu will be added to your main project file, for Arduino this will be the INO sketch, for mbed it will be the main cpp file. The designer round trips on these.
- We'll cover runtime menu items in a separate video.

Building and deploying

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TCMENU - BUILDING A SIMPLE MENU.

Thanks for watching

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