

0.1 Using the ArduinoLatexListing facilities in LyX

- Copy the file *arduinoLanguage.tex* into your LyX document's source folder.
- Add the following to the Document->Settings->Latex Preamble:

```

1 % Stuff to use Arduino listings language and the MyArduino
   style.
2 % This is Language=Arduino...
3 \input{arduinoLanguage.tex}
4
5 % This is style=myArduino...
6 \lstdefinestyle{myArduino}{
7   language=Arduino,
8   %% Add other words needing highlighting below %%
9   morekeywords=[1]{}, % [1] -> dark green
10  morekeywords=[2]{FILE_WRITE}, % [2] -> light blue
11  morekeywords=[3]{MCUSR, SD, File}, % [3] -> bold
    orange
12  morekeywords=[4]{open, exists}, % [4] -> orange
13  %% The lines below add a nifty box around the code %%
14  frame=shadowbox,
15  rulesepcolor=\color{arduinoBlue},
16 }
```

- Add one of the following to Document->Settings->Listings:

```
1 style=myArduino
```

```
1 language=Arduino
```

Note

If you use the latter, you will need to tick the "Bypass validation" box as this is not a LyX built in language. Ask me how I know?

The former will cause all listings to be formatted in the myArduino style, with a fancy box around it, the latter will not. The choice is yours. If you want some listing in the Arduino language and others using the style, then set the one you use most in settings and for the others, add it on the advanced tab of Settings for the listing. This document has the language defaulted and anything that doesn't need it, the \LaTeX code above for example, defines whatever it wants in the listing's own settings dialogue.

0.2 Sample code

Insert a program listing, then into it, insert the Arduino *.ino file you want to include and then right-click->Settings, and set the following on the Advanced Settings tab:

- style=myArduino

```
1 // This is a single line comment.
2
3 /* Another comment over
4  * a couple of lines
5  */
6
7 #define ledOn 2
8 #define ledOff 3
9
10 void setup() {
11     pinMode(LED_BUILTIN, OUTPUT);
12     pinMode(ledOn, INPUT_PULLUP);
13     pinMode(ledOff, INPUT_PULLUP);
14 }
15
16 void loop() {
17     Serial.println("MCUSR = ");
18     Serial.println(MCUSR);
19     delay(1000);
20 }
```

In the above, “MCUSR” is a register name. The Arduino language doesn’t know about it, so would not have highlighted it. However, because I added it to the myArduino style in the Document->Settings->Latex preamble, it is highlighted.

There’s no need to set line numbering, position, etc as that is covered in the Arduino Language settings.