Electronics Projects with the ESP8266 and ESP32 Updates

Listing 1-3 Radio station URLs constantly change. URLs at March 2022 are:

```
"1940sradio1.co.uk:8100/stream/1/", // 1940s music
"irmedia.streamabc.net/irm-bbrberlinclub-mp3-128-4574783", // Berlin
"media-ice.musicradio.com/ClassicFM", // Classic FM
"stream.live.vc.bbcmedia.co.uk/bbc_radio_fourfm", // BBC Radio4
"vpr.streamguys1.com/vpr64.mp3", // Vermont
"stream.radiometro.no/metro128.mp3", // Trondheim
"radio.virginradio.co.uk/stream" // Virgin
```

Listing5-3 is based on version 2.8.0 of the *IRremote* library for the ESP32 microcontroller.

Listing5-3_NEW is based on version 3.0.2 of the *IRremote* library.

Library version 3.0.2 instruction IrReceiver.begin(IRpin) replaces library 2.8.0 instructions IRrecv irrecv(IRpin), decode_results reading and irrecv.enableIRIn(). The library version 3.0.2 instruction if(IrReceiver.decode()) replaces the instruction if(irrecv.decode(&reading)).

Received data is accessed in library version 3.0.2 from IrReceiver.decodedIRData (protocol, command and numberOfBits), rather than from reading (decode_type, value and bits) in library version 2.8.0.

ESP32 analog input (pages 632-633) The GPIO pins 0, 2, 4, 12, 13, 14, 15, 25, 26 and 27 are also available for analog input, but not when Wi-Fi is in use.

ESP-MESH protocol could be included in Chapter 14: *ESP-NOW and LoRa communication*, but the book already covered many topics and a line had to be drawn somewhere.

Details of ESP-MESH with sketches are included in the folder ESP-MESH.

Corrections

Despite repeatedly checking the page proofs, some typos persevered.

If you find other typos, then please use GitHub Issues to log the typo or other issues.

Page 28 Figure 2-1 change TX to RX and change RX to TX

Page 96 text first line change 13, 14 and 15 to S0, S1 and S2

Page 96 text line 4 change 14 and 15 to S1 and S2

Page 165 lines 1 and 2 change the order of the two lines to:

WiFi.softAPConfig(local_ip, gateway, subnet);
WiFi.softAP(ssidAP, passwordAP);

Page 172 text line 7 change R" (=== and ===) " to R"=== (and) ==="

Page 174 lines 1 and 3 change Listing 7-2 to Listing 7-3

Page 175 line 1 change variable to variab

Page 207 text line 1 delete "or app"

Page 233 line 11 change servoFb.write(N) to servoFB.write(N)

Page 505 last line change resistor R1 is $R2 \times$ to resistor R2 is $R1 \times$

Page 588 listing line 3 in the comment, change Wi-FI to Wi-Fi

Page 599 text line 3 change Listing 20-2 to Listing 20-3

Page 656 (last-7) line change 0x2A63 to 0x2A6E

Neil Cameron

March 2022