# Gary Allen PCB Assembly Details

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| **#** | **Reference** | **Qty** | **Value** | **Footprint** |
| 1 | C4, C5, C8, C9 | 4 | 100nF | Capacitor\_SMD:C\_0805\_2012Metric\_Pad1.18x1.45mm\_HandSolder |
| 2 | C1 | 1 | 1uF | Capacitor\_SMD:C\_1206\_3216Metric\_Pad1.33x1.80mm\_HandSolder |
| 3 | C2 | 1 | 4.7uF | Capacitor\_SMD:C\_1206\_3216Metric\_Pad1.33x1.80mm\_HandSolder |
| 5 | C6, C10 | 1 | 22uF | Capacitor\_SMD:C\_1206\_3216Metric\_Pad1.33x1.80mm\_HandSolder |
| 9 | R3, R4 | 2 | 1.2k | Resistor\_SMD:R\_0805\_2012Metric\_Pad1.20x1.40mm\_HandSolder |
| 10 | U1 | 1 | ATMEGA328P-AU | Package\_QFP:TQFP-32\_7x7mm\_P0.8mm |
| 11 | U2 | 1 | Ai-Thinker-Ra-02 | RF\_Module:Ai-Thinker-Ra-01-LoRa |
| 13 | U4 | 1 | MAX485E | MAX485:SO08 |
| 14 | Y1 | 1 | Crystal | Crystal:Crystal\_SMD\_HC49-SD |

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| **Reference** | **Pin #1 on IC** | **Pin #1 on PCB** |
| U1 | Marked | Bottom right |
| U2 | Next to Molex connector | Top left |
| U4 | Marked | Marked |

(“Bottom right” etc. is relative to when the text is placed upright on that side of the board)

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| **Capacitor Value** | **Package** | **Size** |
| 100nF | White reel of 10 | 0805 |
| 1uF | Transparent reel of 2 | 1206 |
| 4.7uF | White reel of 2 | 1206 |
| 22uF | Transparent reel of 10 | 1206 |