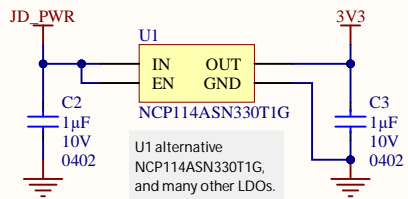
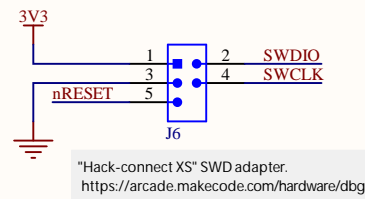


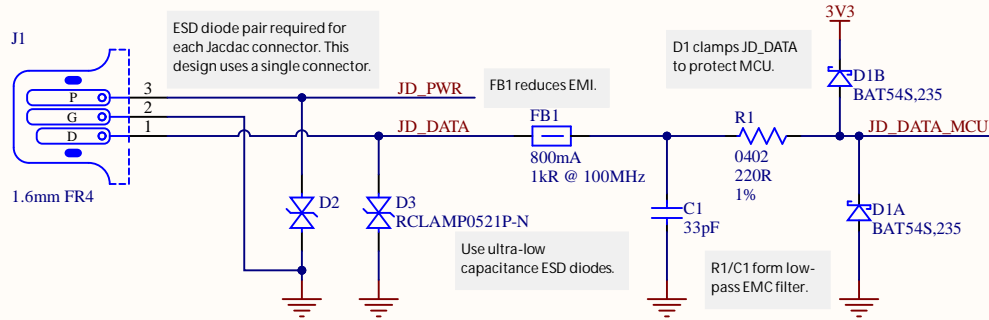
3V3 regulator



Programming/debug connector



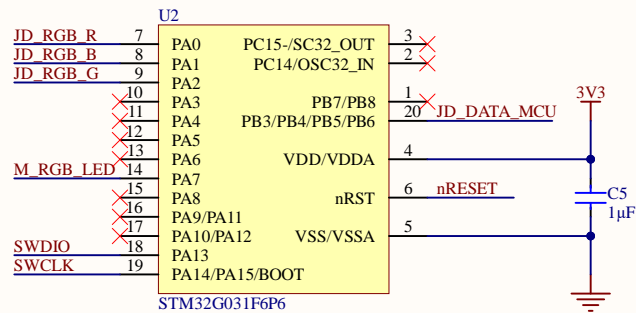
Jacdac connector



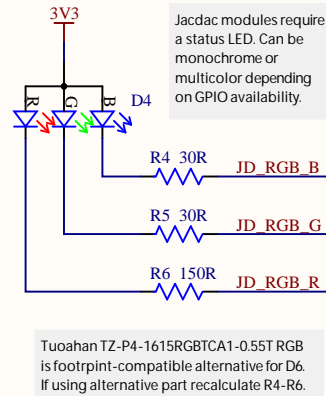
MCU

U2 critical pin mappings:
PB6 USART1_TX for JD data
PA0 for JD_RGB_R
PA2 TIM2_CH3 for JD_RGB_G
PA1 TIM2_CH2 for JD_RGB_B
PA7 RGB ring data

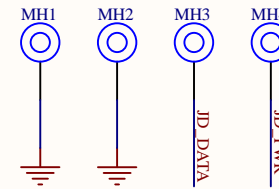
JD_DATA doesn't need WAKEUP pin because deepest sleep isn't used.



Status LED



Mounting holes



This design uses Jacdac 'small' mounting holes: PTH with finished diameter of 2.1mm, annular copper ring of 3.0mm diameter & copper/component keepout of 5.0mm. The mounting holes must be on 2.5mm pitch. Mounting holes should have appropriate silkscreen marker, and MH1 should have a pin 1 marker on the top side.

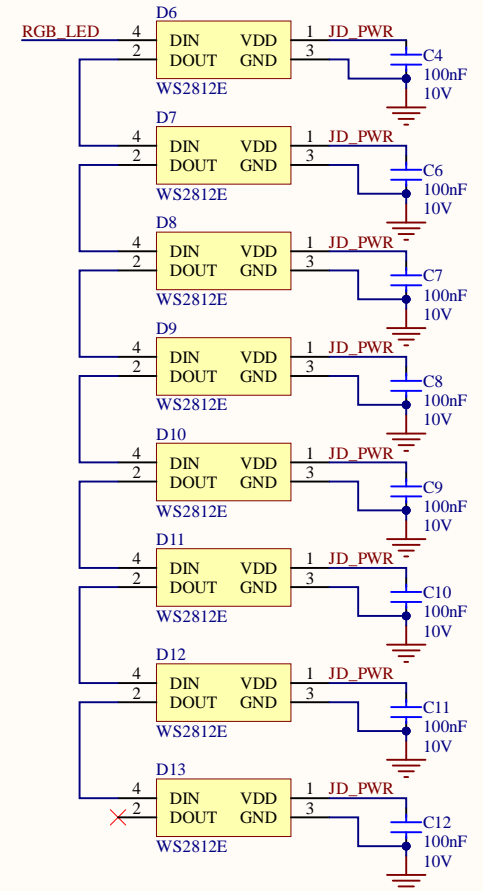
This reference design is a guideline. Please refer to the Jacdac docs online at <https://aka.ms/jacdac> for the definitive and most up-to-date information.

This design uses a 'cute' board shape.

Silkscreen should include text to identify the module type and revision, and optionally a QR code.

RGB LEDs

RGB LEDs are powered directly from JD_PWR to leverage higher voltage.



Silkscreen & layout notes

Block name

Design notes

This information is provided "as-is". You bear the risk of using it. Some information relates to pre-released specification which may change without notice. Microsoft makes no warranties, express or implied, with respect to the information provided here.

When this PDF is viewed with Adobe Reader, clicking on components shows part numbers and other details.

PROJECT FILENAME JacdacRgbLedRing8 37.PrjPCB

PROJECT CODENAME JacdacRgbLedRing8

SHEET FILENAME JacdacRgbLedRing8 37.SchDoc

LICENCE Attribution 4.0 International (CC BY 4.0)

Microsoft

PROJECT DESCRIPTION
Jacdac RGB module with 8x LEDs in a ring

SHEET DESCRIPTION
Complete design

LAST MODIFIED 03/12/2021

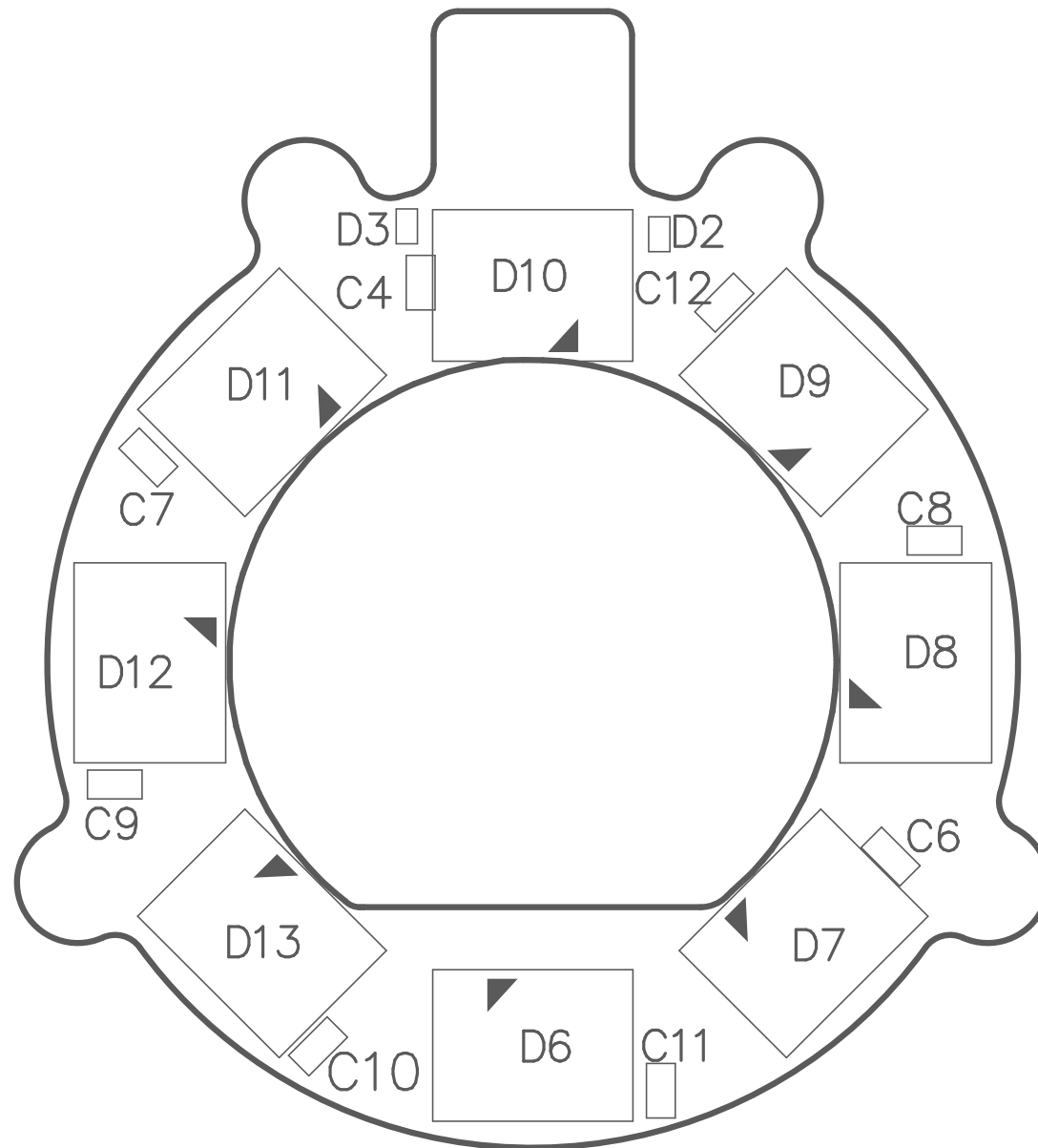
PAGE 1 OF 1

DRAWN BY D. Gakure & S. Hodges

REVISION 2.2

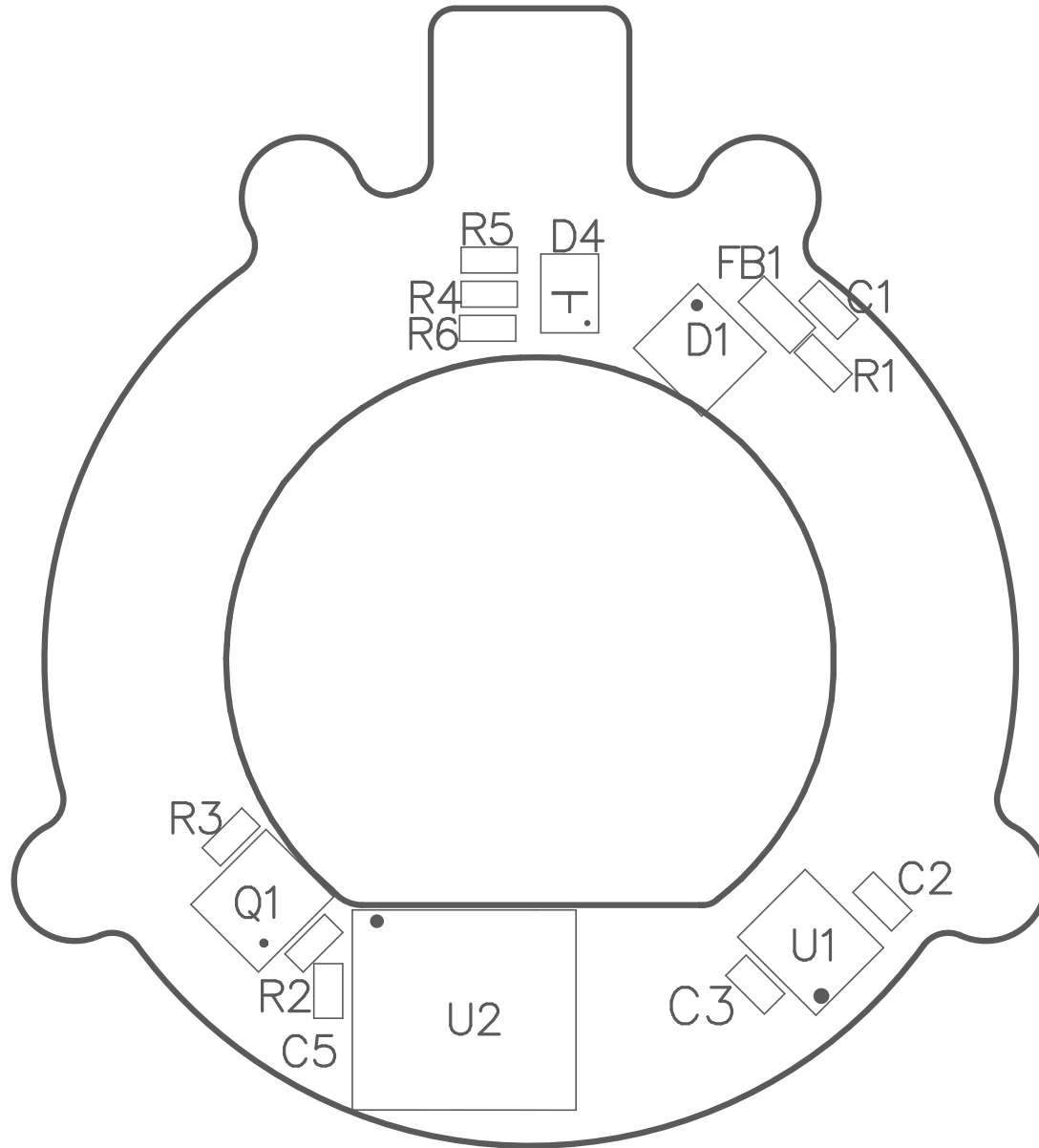
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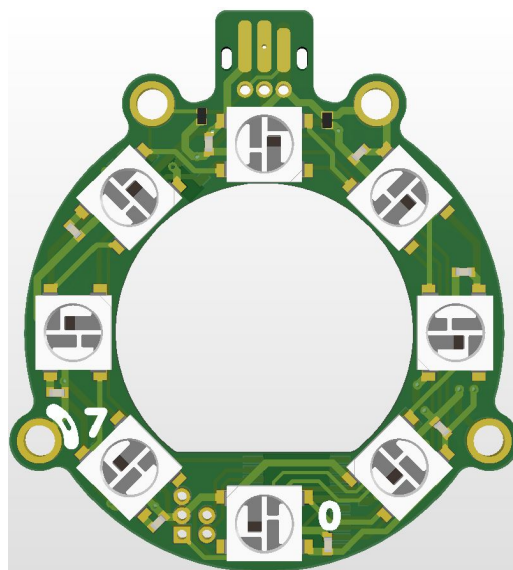
Board Outline
Top Assy

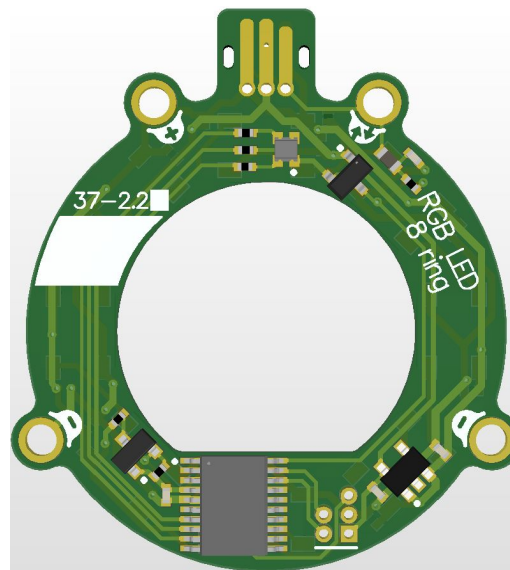


Board Outline

Bottom Assy

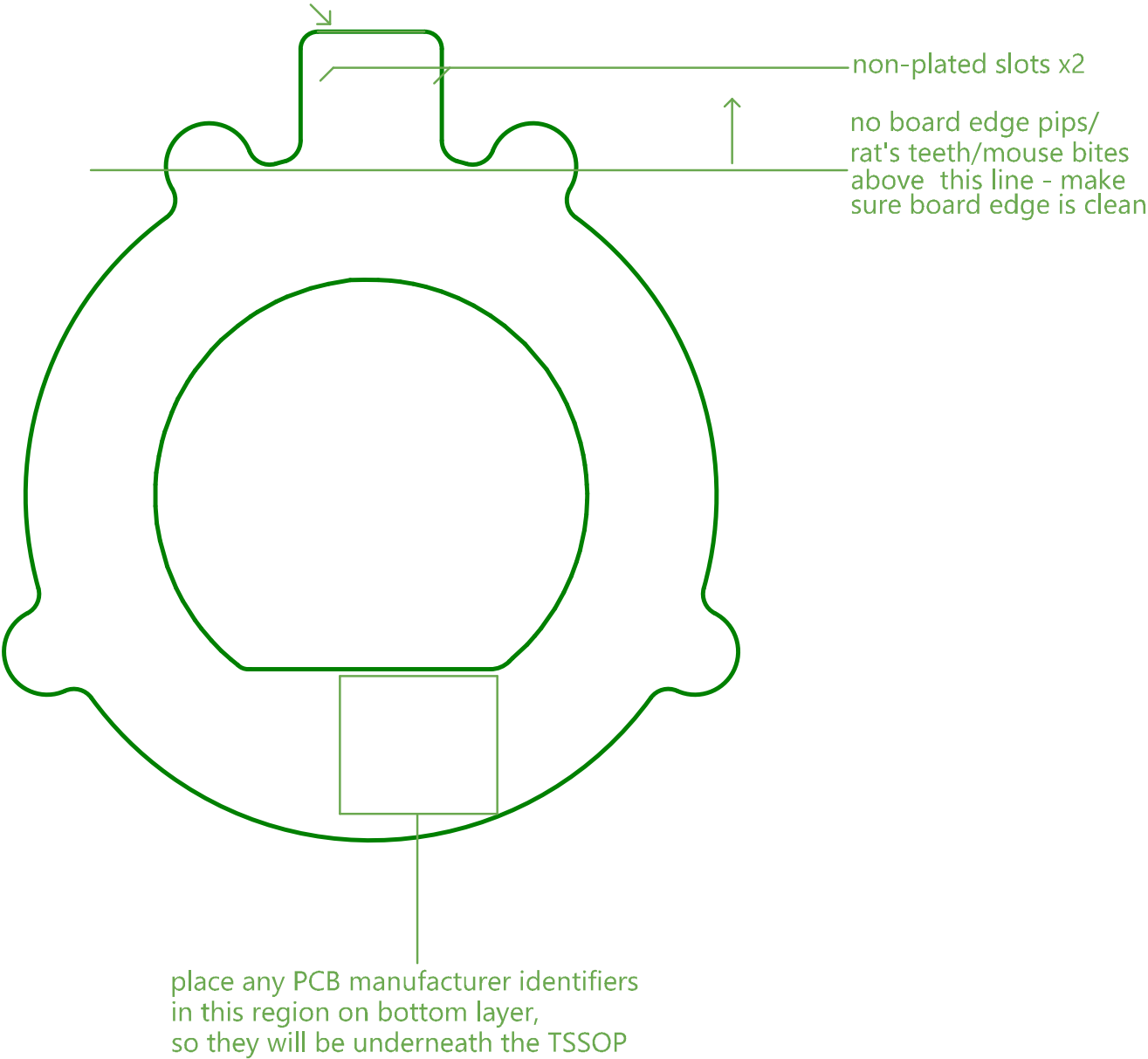






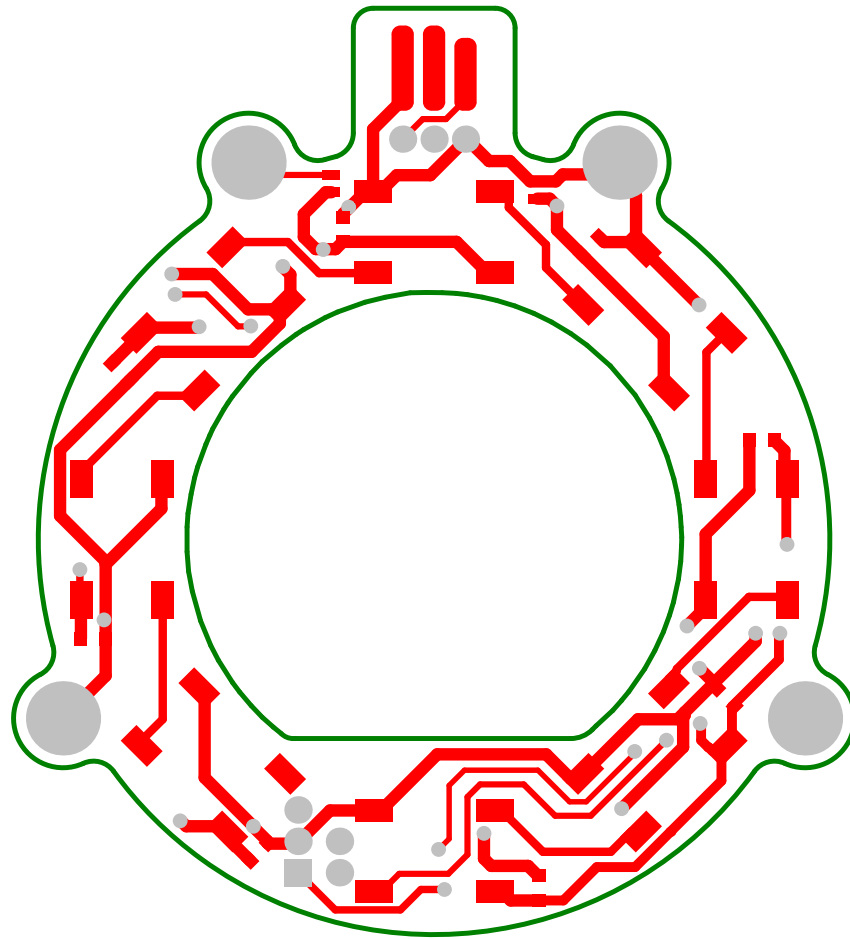
Fabrication Notes

Board Outline



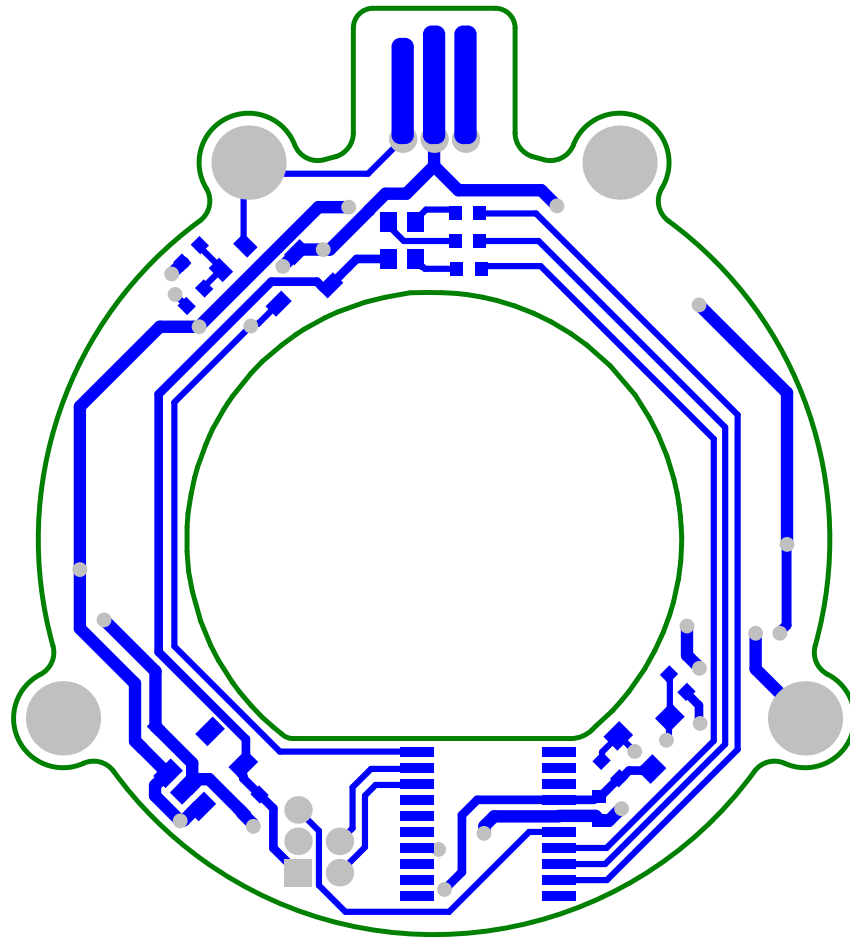
Top Layer

Board Outline



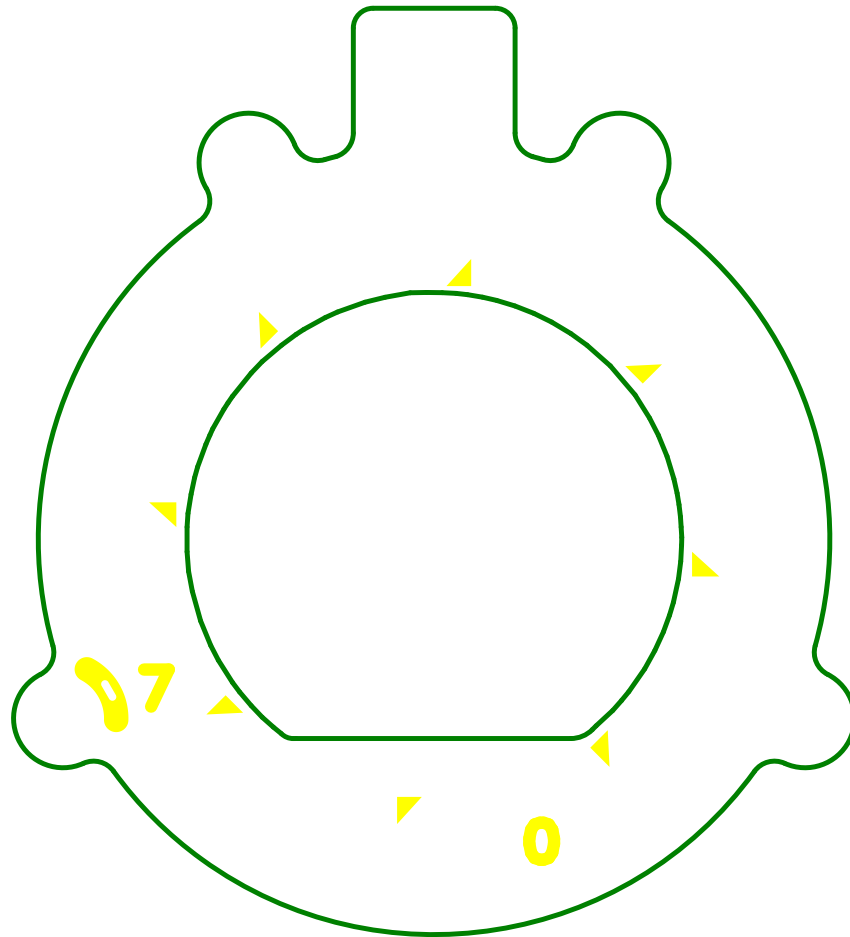
Bottom Layer

Board Outline



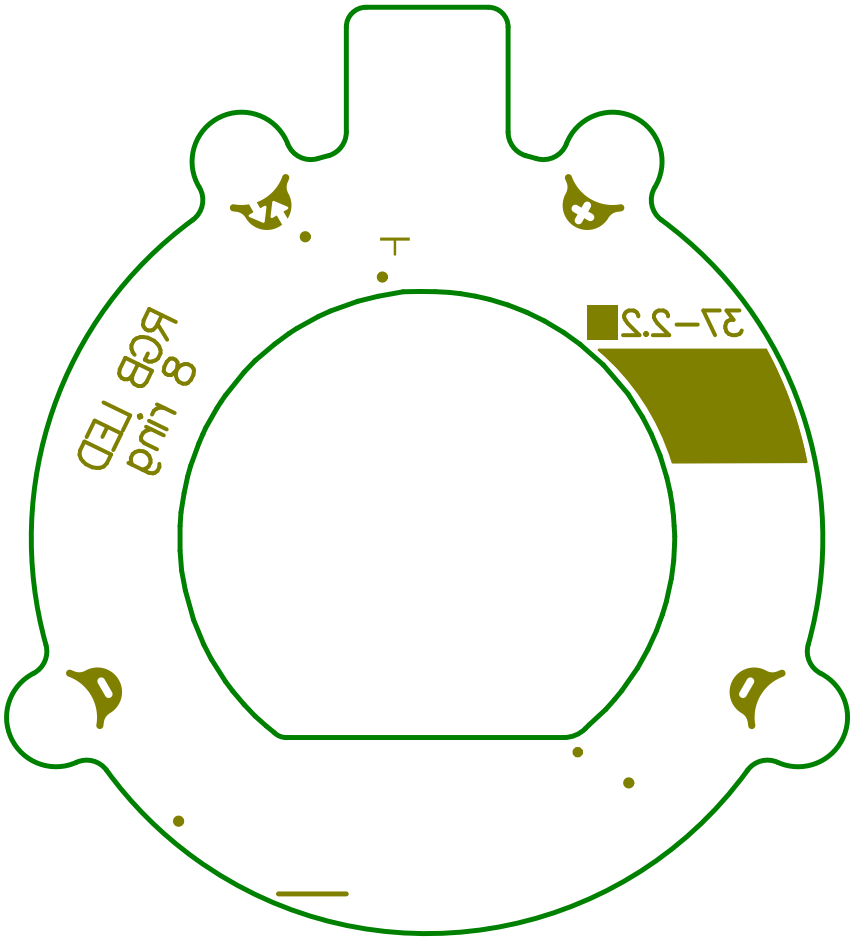
Board Outline

Top Overlay



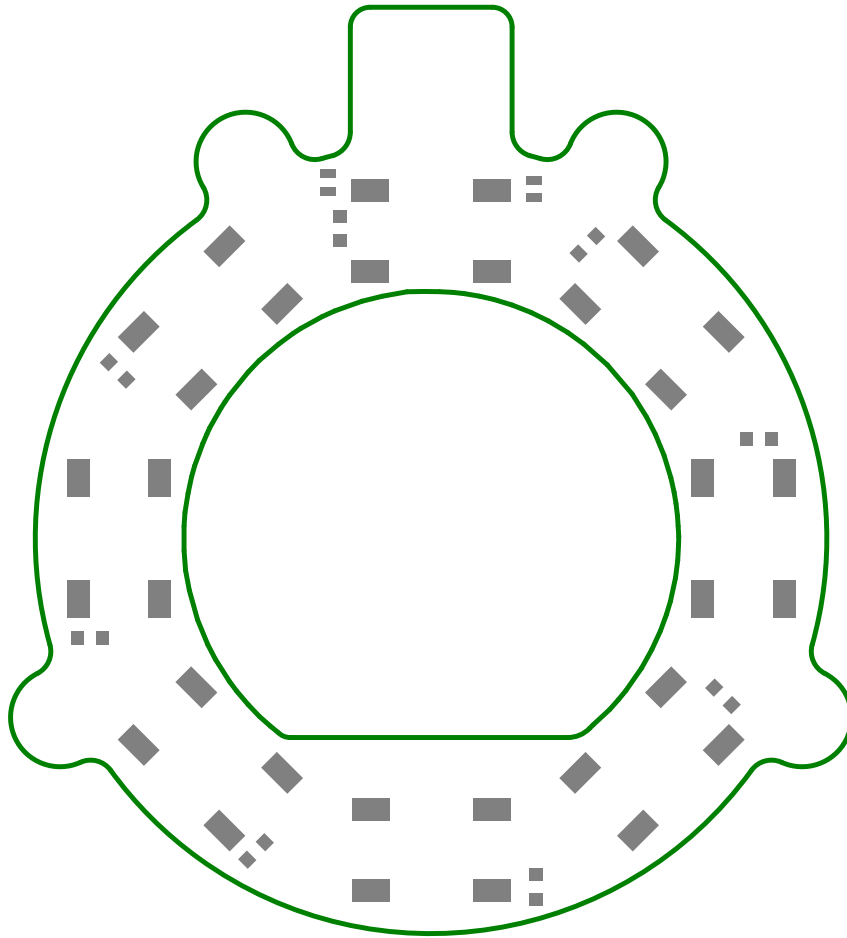
Board Outline

Bottom Overlay



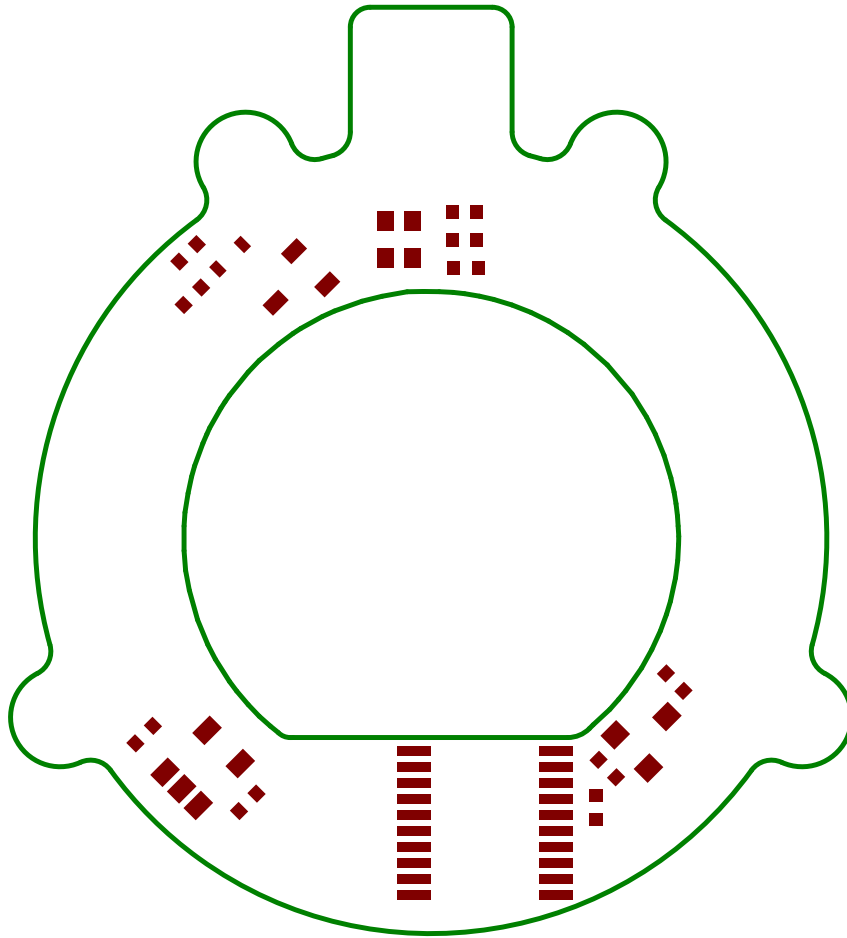
Board Outline

Top Paste



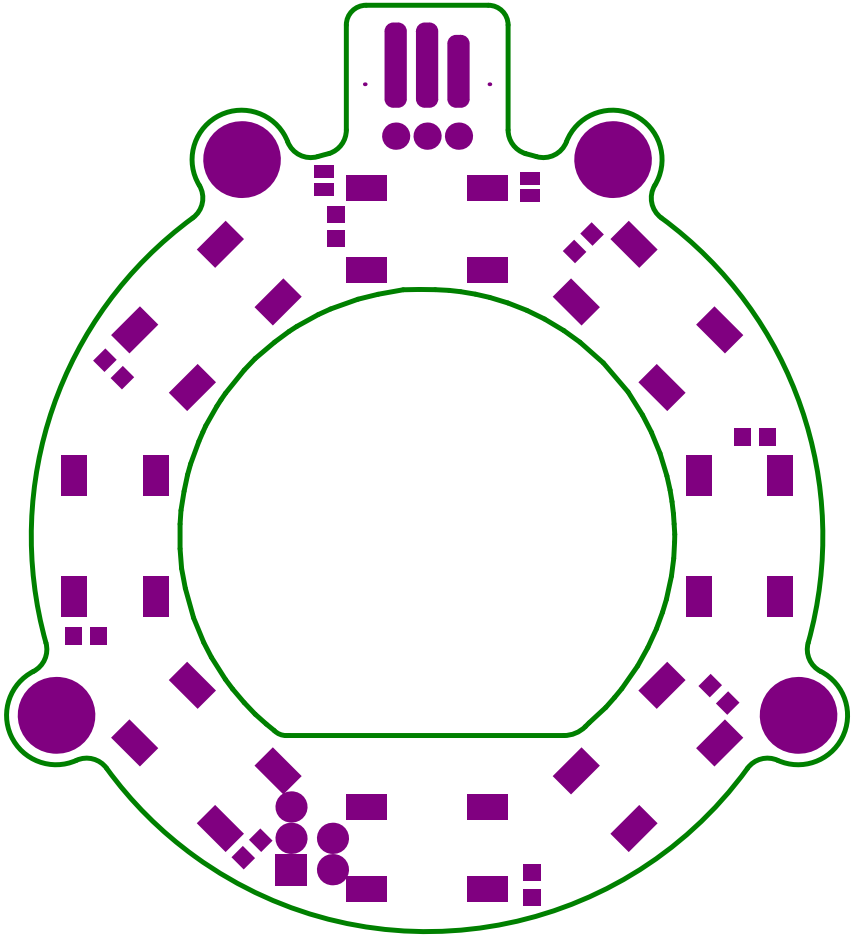
Board Outline

Bottom Paste

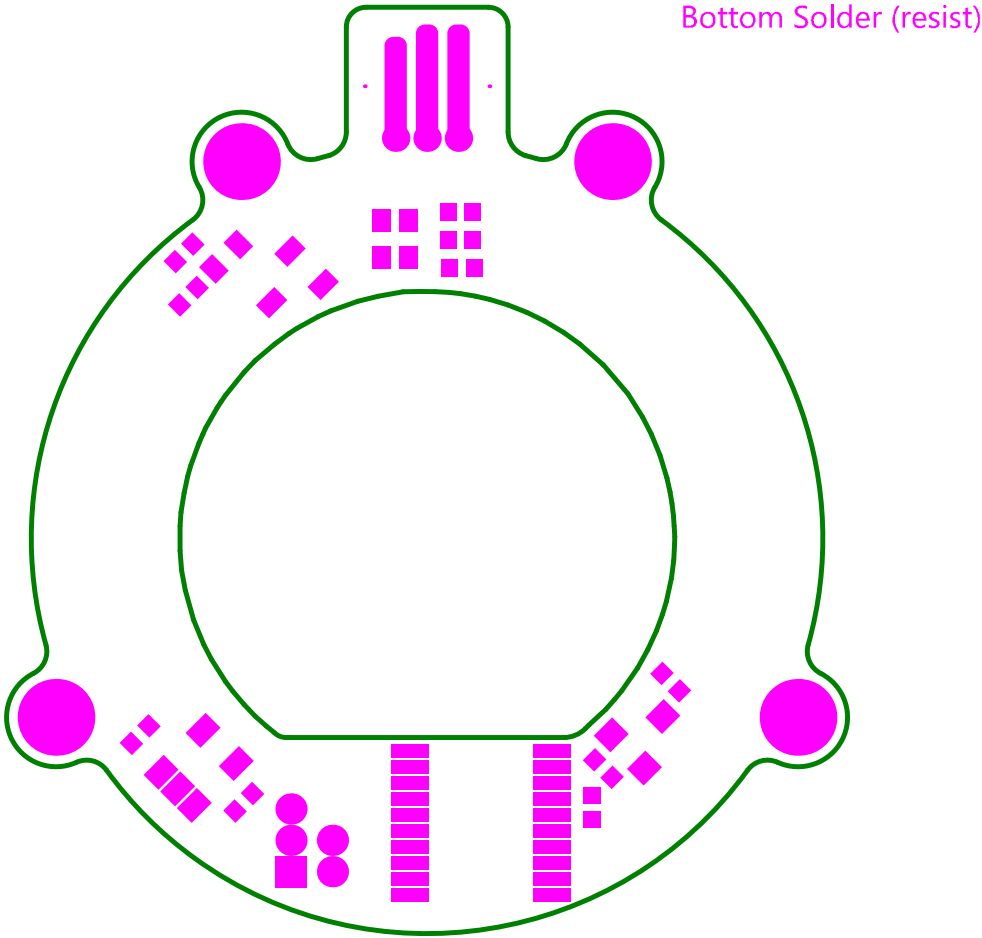


Board Outline

Top Solder (resist)



Board Outline



Board Outline

