**GAL v.2 mod D - Parts List**

**11/15/23**

*Items indicated with an (\*) differ from parts in Knack’s kit.*

**Hardware**

\* 5x M4x6mm Button Head Hex Drive Screw - Securing Lid to Body

\* 5x M4x4mm Short Threaded Heatset Inserts - Securing Lid to Body

\* 1x M3x70mm Socket Head Screw - Pic Rail Screw

2x M3x12mm Flat-Tip Set Screw - Laser Adjustment Screw

2x M3 Hex Nut - Laser Adjustment Lock

3x M3x4mm Short Threaded Heatset Inserts - Laser Adjustment, Pic Rail Nut

\* 1x M2x4mm Short Threaded Heatset Insert – Mode Selector Knob Retainer

\* 1x M2x4mm Flat Tip Screw - Mode Selector Knob Retainer

2x AAA Negative (Spring) Battery Terminal - Negative terminal for battery, rear spring for laser

1x 0.5'' x 0.148'' OD Compression Spring - Laser retention spring

Various Lengths of thin wire (20 to 28 AWG)

1x 3.5'' of 18 to 22 AWG Solid Core Wire or Enamel Wire

1x 21mm dia. x 1-2mm thick Copper Disc

1x AAA Positive Battery Terminal - For battery positive terminal

1x Laser Hole Cover - Covers the Laser Hole

This can be laser cut/CNC’d from 1/16” polycarbonate or acrylic, or made by hand

1x 6.1mm ID Unthreaded Spacer - 1st Stage of Crane Connector

1x 0.198'' ID Unthreaded Spacer - 2nd Stage of Crane Connector

**Electrical Components**

\* 1x Momentary Press Button **– Schurter 1241.1104.7097** - Activation Button

\* 1x Momentary Press Button Bolt Down Kit – **Schurter 0098.9201**- Secures Activation Button

\* 1x Rotary Switch – **Grayhill 56P36-01-1-09N** - Mode Selection

1x 940nm or 850nm 3W LED - Illuminator LED

1x 20mm Lens for 3W LED (various beam angles) - Illuminator LED Lens

1x 850nm 6x23mm TTL Driven Laser - IR Laser

1x 650nm 6x23mm TTL Driven Laser - Visible Laser

1x Diffused 2mm Flat Top LED - Indicator LED

**Control board**

*1x Custom PCB:*

1x ATTINY84A-SSU-ND

1x MMBT2222ATPMSCT-ND

8x RES 10K OHM 5% 1/8W 0805 (RC0805JR-0710KL)

2x RES 10 OHM 1% 1/4W 0805 (RC0805FR-7W10RL)

1x RES 3.3K OHM 1% 1/8W 0805 (RC0805FR-073K3L)

1x Connector HEADER VERT 10POS 1.27MM (20021111-00010T4LF)

1x Connector SOCKET 10POS IDC GOLD (3230-10-0101-00)

1ft. 0.635mm (0.025") Pitch 10-Wire, 10 Conductors IDC Flat Ribbon Cable for 1.27mm 10POS Connector

\*\* Arduino Uno and jumper wires to connect to PCB and program the ATTINY84A \*\*

**--OR—**

*1x KNACK GAL V2.2 PCB* with lead wires from rotary switch to board positions, this board is pre-built with components and the ATTINY84A is already programmed.