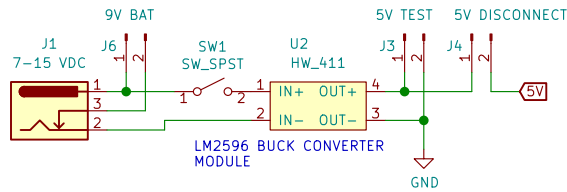
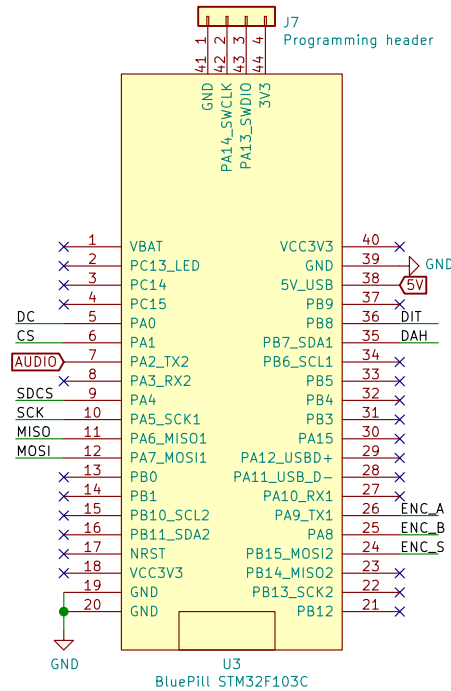


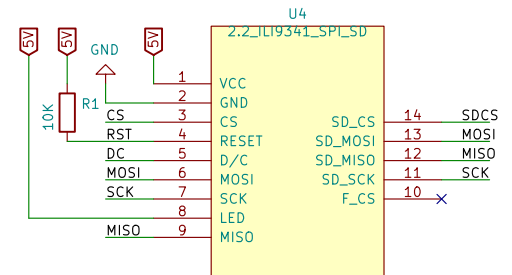
POWER CIRCUIT



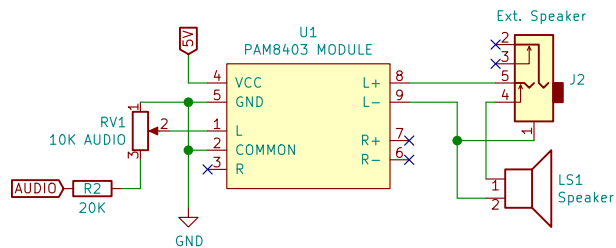
BLUE PILL MICROCONTROLLER



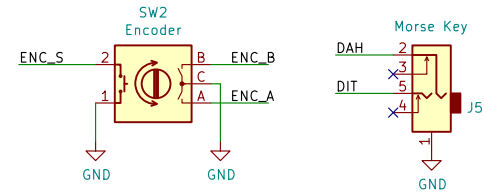
2.2" TFT DISPLAY MODULE



AUDIO OUTPUT CIRCUIT



INPUT DEVICES



NOTES for Rev. 1:

- 1) Do not ground the external speaker jack.
- 2) 0.1uF caps to GND may be added to DIT, DAH, ENC_A, ENC_B, ENC_S, if necessary
- 3) Addition data lines may be added for optional LED illumination.
- 4) 0.1 uF bypass caps may be added to reduce power noise, if necessary
- 5) Right channel of PAM8403 unused at present.
- 6) Cannot use stereo headphones since L/R channels dont have common ground

NOTES for Rev 2:

- 1) ENC_A & ENC_B lines have been switched
- 2) Improved footprints for PAM8403 AMP module, Blue Pill, and Stereo Jacks
- 3) Larger 3 mm mounting holes accomodate M2, M2.5, M3, and 4-40 hardware.
- 4) Optional programming header on bottom of PCB
- 5) Board size: 141 x 69 mm

Bruce E. Hall

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Title: W8BH MORSE TUTOR

Size: USLetter Date: 2019-09-14
KiCad E.D.A. kicad (5.1.4)-1

Rev: 2
Id: 1/1