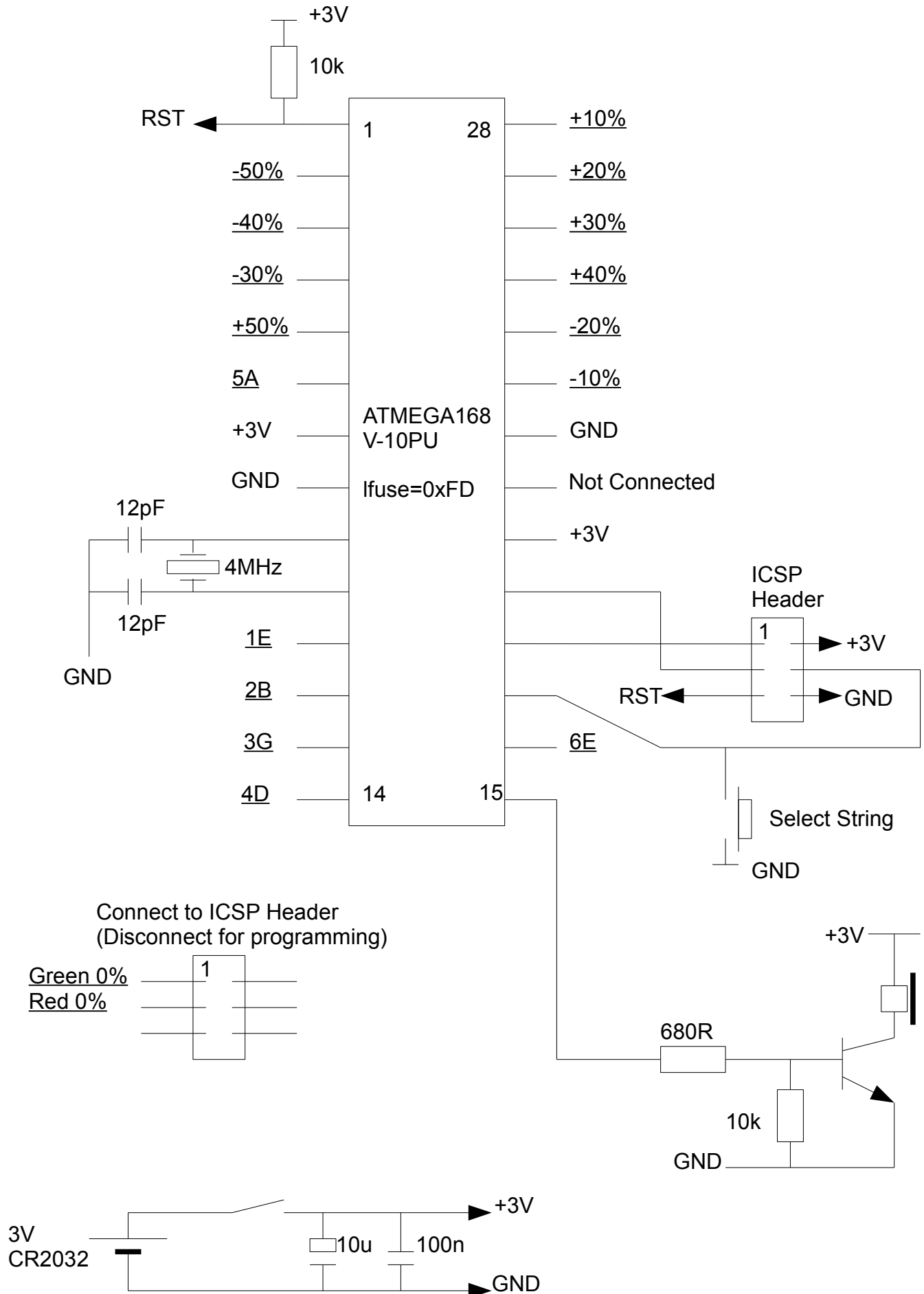


Guitar Tuner for the Blind – Modification to Cherub Guitar Mate WST550G Iain Sharp 2010

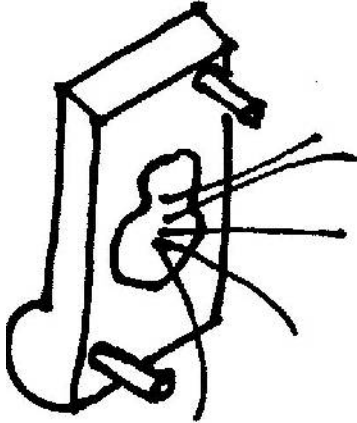
Underlined labels indicate a connection to the cathode of the corresponding LED on the Guitar Mate. Power should also be connected to the Guitar Mate!



Guitar Tuner for the Blind – Modification to Cherub Guitar Mate WST550G Iain Sharp 2010

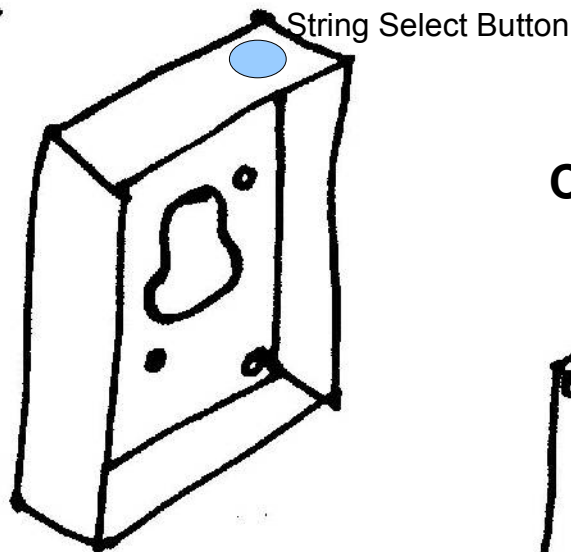
Physical Construction

Guitar Mate



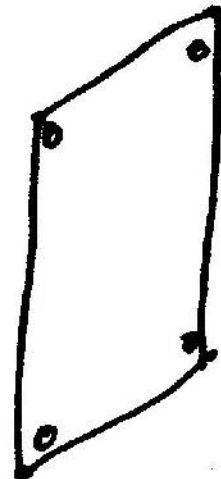
Remove battery and cut hole in back of case. Solder wires to the back of PCB and bring through hole. Drill out two corners and insert small screws

Project Box



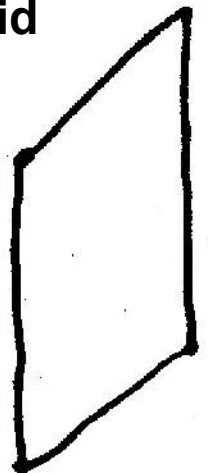
Cut hole in centre to align with Guitar Mate and allow access to original case screws for Guitar Mate. Cut holes to allow corners screws to come through and attach Guitar Mate. Feed wires through centre hole. Put PCB mounts on corners

Circuit Board



Solder wires from Guitar Mate to back of board (except the two wires that are brought round to the ICSP header. Connect power circuit

Project Box Lid



Build Sequence:

- 1) Dismantle Guitar Mate. Modify case for Guitar Mate and solder wires to back of PCB.
- 2) Prepare project box and check alignment
- 3) Attach back of Guitar Mate case to project box using the two corner screws
- 4) Place Guitar Mate PCB in case back and feed wiring through the large holes in both cases
- 5) Reattach the front of the guitar mate and tighten fastening screws through hole in back of project box
- 6) Assemble circuit on circuit board and attach wiring to Guitar Mate, power switch and string select button
- 7) Program ATMEGA via ICSP port
- 8) Test!