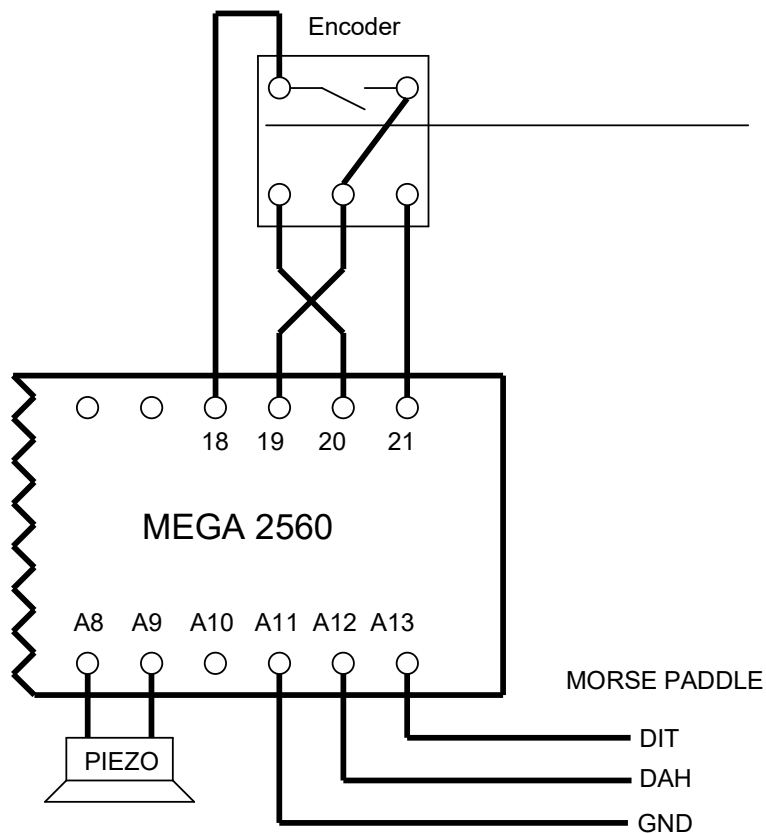


## Morse Tutor Simplified Schematic

A 'port' of the W8BH 'Blue Pill' Morse Tutor to a Mega 2560  
by Ken, KM4NFQ "Not Fully Qualified" 6 August 2019  
modified by GM4CID to simplify assembly 14 August 2019

Hardware  
Arduino Mega 2560  
2.4 inch LCD Display Shield  
Switched Rotary Encoder  
Piezo Sounder



2.4 inch LCD Display Shield mounts directly on Mega 2560

**See next page for three wire adds on rear of Mega board**

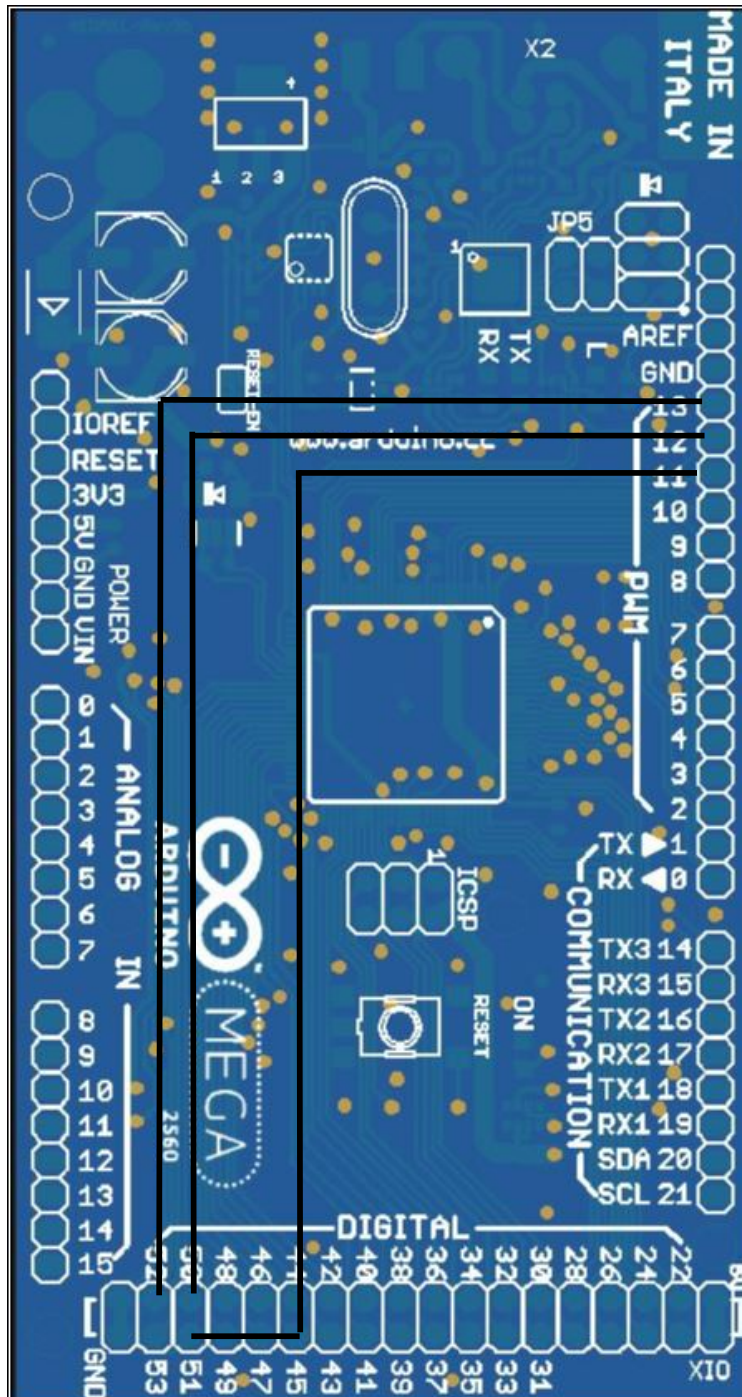
Mega is 5v USB powered from a mobile phone power bank

Wire adds on rear of Mega 2560 board

50 (MISO) to 12  
51 (MOSI) to 11  
52 (SCK) to 13

Noter - 11, 12 and 13 are set high impedance in sketch

**Wire adds are on track side of board, following picture is of the component side.**



SCK  
MISO  
MOSI  
to SD Reader