

Arduino KISS TNC

Introduction

Ever wanted to try APRS (positioning/tracking) or even AX25 Packet? Traditionally, a TNC (terminal node controller) was required and these required a "real" 9pin serial port – they weren't cheap, either. The popular PacComm Tiny-2 was around £149. With microcontrollers, PICs and now, Arduinos common-place - rolling your own solution is both cheap and easy.

Using a *Nano* or *Uno* board, you simply plug the USB cable into your computer, the device will appear as a COM port which can then be used to communicate with the AGW Packet Engine or any other KISS TNC-compatible software (even on Linux).

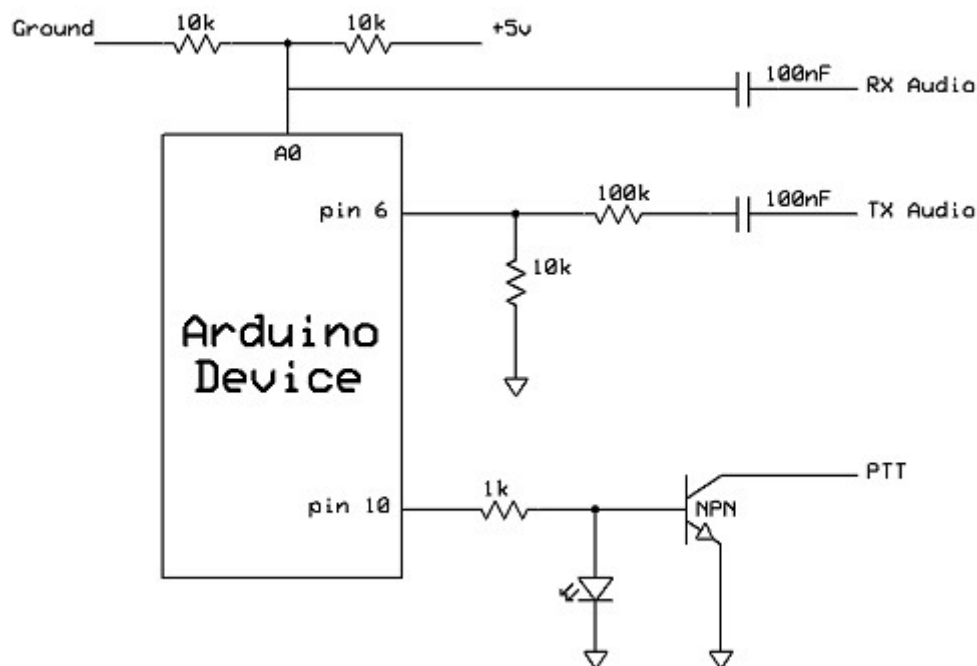
This project requires a re-flash of the 'duino firmware using AVRDUDE with some code from Mobilinkd:

<http://www.mobilinkd.com/2014/09/11/arduino-kiss-tnc/>

Parts Required

There's not much to this project and you can probably find the parts in your own "junk" box. You can package the whole thing into a small ABS enclosure and you're ready for APRS/Packet (AX25) operations.

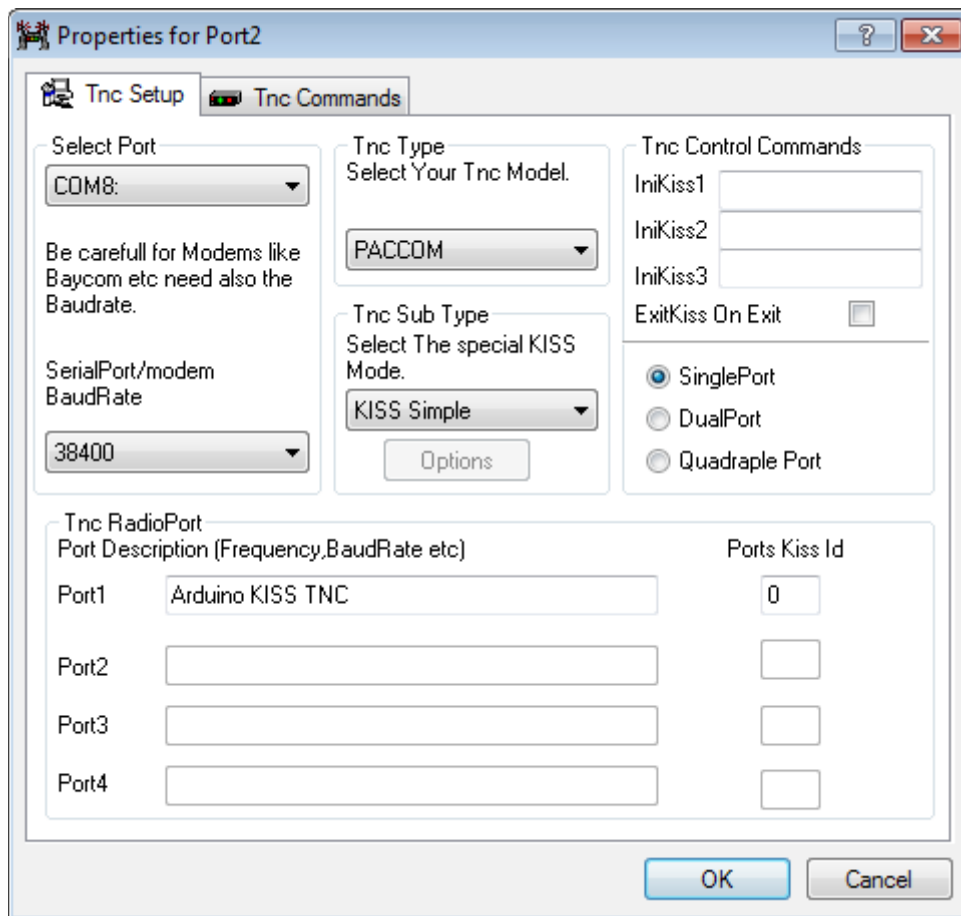
- 1x Arduino-compatible Microcontroller + firmware
- 1x USB Cable
- 1x NPN Transistor, eg: 2N2222A, BC108 etc
- 2x 100nF Capacitors
- 3x 10k ¼w Resistors
- 1x 5mm Red LED



Arduino KISS TNC (con't)

Using It

Once you're ready to start – Just tell AGW Packet Engine that you can a KISS/PACCOMM TNC on *COM n* at 38400 (8N1) as per the screenshot below :



You're now ready to run AGW Tracker, UI-View, Xastir or whatever software you wish to use...!

Resources

The following websites will help you with this project:

KISS TNC Firmware from Mobilinkd:

<http://www.mobilinkd.com/2014/09/11/arduino-kiss-tnc/>

AVRDude – for re-flashing Arduino:

<http://www.ladyada.net/learn/avr/avrdude.html>