

# Ham Goodies

## Essential items for your Amateur Radio hobby

### 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, Arduino boards common-place - rolling your own solution is both cheap and easy.

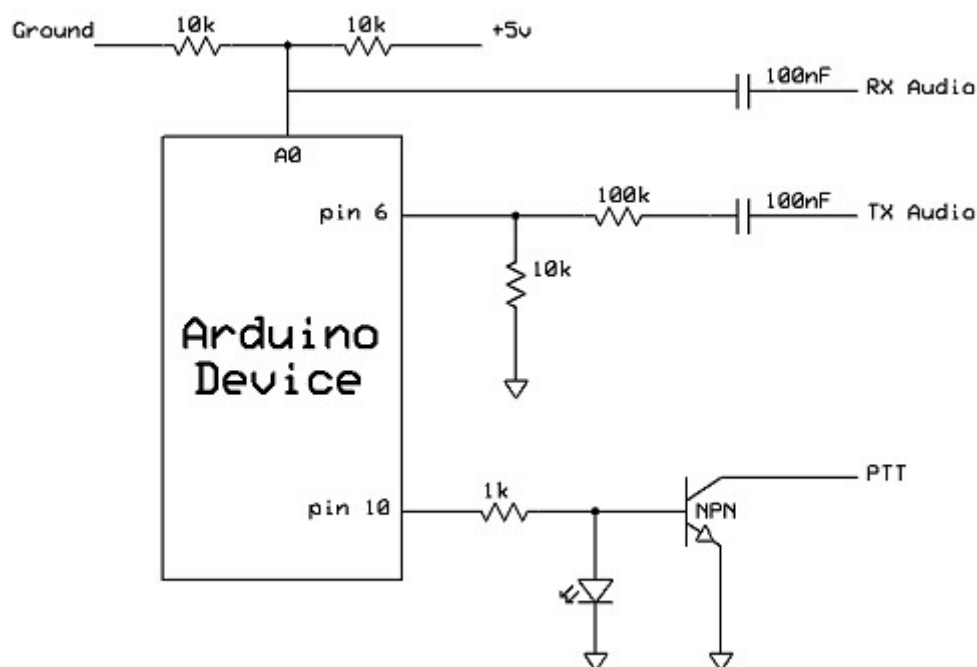
Using a *Nano* or *Uno* board, you simply plug the USB cable into your computer, the device will appear as a COM port which can then be used to communicate with the AGW Packet Engine or any other KISS TNC-compatible software (even on Linux).

If you've not purchased a pre-configured 'duino board from us, you'll need to re-flash your own using AVRDUDE with some code from Mobilinkd: <http://www.mobilinkd.com/2014/09/11/arduino-kiss-tnc/> - if you've bought this product from our website, you just need the CH341 drivers from our website and you're ready to configure the TNC with AGW or any KISS-enabled software.

#### 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.

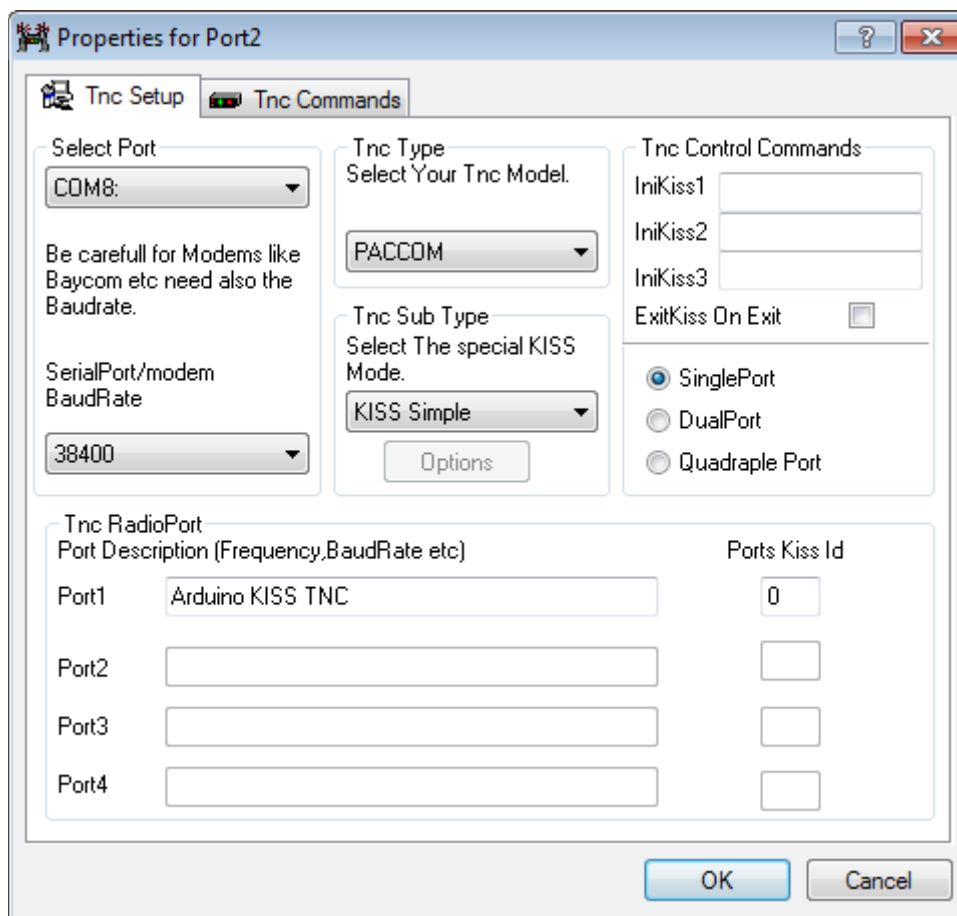
- 1x Arduino-compatible Microcontroller + firmware  
(supplied by us)
- 1x USB Cable – supplied by us
- 1x NPN Transistor, eg: 2N2222A, BC108 etc
- 2x 100nF Capacitors
- 3x 10k 1/4w Resistors
- 1x 5mm Red LED



## 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>

Command-line to re-flash:

```
avrdude -c arduino -p m328p -P COM12 -b 115200 -U kisstnc.hex
```

Arduino-compatible KISS TNC from us – Driver download:

<https://www.hamgoodies.co.uk/arduino-kiss-tnc>