

The great 2026 ETF shootout is coming upon you!

And while last year's topic yielded tremendous efforts by many chefs from the school of cooking with triodes, this year, your soldering irons will only need to be used sparingly.
The topic is:

Building a tonearm from scratch!

For this competition this arm is to be mated to an Audio Technica AT-VM95ML , provided by the ETF team once a contestant registers for the competition. No need to purchase the cartridge yourself!

In order for us to provide a testing/comparison platform here's what your arm needs to comply with:

It's pivot to spindle distance can be any length up to 302mm.

The external section of the tonearm wiring has to be 1m in length (measured from the exit point of the arm shaft or the arm wiring strain relief point). Shielding the wiring and providing a ground wire is highly advisable!

Termination in RCA connectors, please.

VTA adjustability is a MUST. For a base with a height of 90mm, the record mat surface is 50mm higher

Here's what you're free to choose from

The material(s) :

The use of anything from stone/minerals, metals, plastics, even organic matter is allowed, as long as it doesn't deteriorate before the final round...

The (bearing)principals applied:

Your arm can be of the pivoted type, a „conventional“ or a pivoted linear tracker Unipivots, ball bearings, air bearings, magnet bearings, string bearings, liquid bearings, polymer bearings or combinations of any or (unlikely) all of these may be chosen.

To make it perfectly clear: **Contenders that use parts like headshells, armwands, bearing assemblies from existing, commercial „donors“ are not eligible.**

Exceptions:

The tonearm lift and SME-compatible bayonet parts – if you decide to employ such devices – can be sourced from wherever. Even Alibaba...

The test „platform“ will be a Victor TT81 motor unit, sitting on a baseboard that allows two tonearms to be used simultaneously.

To allow for a swift exchange of arms between rounds, **each contestant needs to mount her/his tonearm on a base that should be approx. 90mm in total height(incl. feet) and 100mm in width or diameter. In other words, the base you need to fabricate can be round or square.**

If your arm has a pivot to spindle distance of $> 230\text{mm}$, the height of your base can be as much as 110mm. A base for a shorter arm, higher than 90mm, would interfere with the edge of the motor unit.

The arm base/pod needs to be heavy enough to support your tonearm, preventing the entire assembly from tripping over when set atop the comparison baseboard. The bottom can be flat or feature feet/spikes/cones... If your base has no feet of appropriate height, **the wiring needs to come out on the side – there will be no hole in the comparison baseboard on which to place the arm base!**

On the day prior to the shootout, each contestant needs to present his entry to the ETF team. Once approved, the contestant can then set up his tonearm/base on the comparison platform against adjustable stops. VTA, overhang, offsetangle, azimuth and tracking force are all to be adjusted by the contestant.

Once happy with the alignment, we will document the settings of the stops, so the alignment can quickly be duplicated during the shootout.

The comparison follows the time proven ABBA scheme. We will play track 1 via Arm A for about 2 minutes, then track 1 is to be heard via Arm B for 2 minutes.

The order is then reversed, with track 2 being played via Arm B first, followed by Arm A.

Your vote then determines which arm proceeds to the next round.

We'll try to keep the arm transfer/setup time between rounds to a minimum. Pictures(or a drawing) of the comparison platform will be forwarded to those who wish to participate and all questions regarding the hidden traps of the shootout will be answered upon request. This will be fun, not frustrating!

Let's see how many brave and mechanically adept members we can tempt to expose their efforts to the scrutiny of the seasoned golden ears of the ETF community!

The winner takes home a brand new !“\$%&/()=? phono cartridge !!!

The AT-VM95ML cartridges are to be submitted for the auction, benefitting the ETF fund, but every contestant has a first go, should he have fallen in love with his sample by then :-)

Gentlemen, start your Dremels, milling machines - or 3D Printers... !

