



motaxos
& SINS
SINCE 1981

combobulator



thank you for your kind
interest in my work.

this collection is a result
of my over 35 year
fascination with the art
of music reproduction
from concert recording,
electrical engineering and
ultimately, artistic design
to produce objects that
allow you to "be there".

each object is totally
handcrafted by either
myself or one of my sons.

i consider them all
objects of art.

kostas motaxos

K-DESIGN AWARD'18

May 30, 2018

METAXAS

AWARD **WINNER**

TITLE **METAXAS STATEMENT**

COUNTRY **NETHERLANDS**

AFFILIATION **METAXAS & SINS**

This certificate of award is presented in recognition of submission of works with creativity and efforts to the K-DESIGN AWARD 2018.



2018 WINNERS PRODUCT DESIGN

Presented to
Metaxas & Sins Bv

Design
Metaxas & Sins Statement
Amsterdam, Netherlands

Client
Metaxas & Sins

Lead Designer
Kostas Metaxas

Metaxas & Sins Statement has been identified as one of the leading product design by the professional jury of APDC*IDA. Kostas Metaxas is a winner of the APDC*IDA 2018 Design Excellence Awards.

***IDA
APDC**
Design Excellence Awards

Astrid Hebert
Vice President
International Design Awards (IDA)

Hossein Farmani
President
International Design Awards (IDA)

Jason Wang
Secretary-General
Asia Pacific Design Center (APDC)

KEN NAK
KEN NAK

ANDY LOW
ANDY LOW

SHINGO ANDO
SHINGO ANDO

SUNAH KIM
SUNAH KIM



The Chicago Athenaeum

Metaxas & Sins
Over schiestraat 184
Amsterdam 1062XK
The Netherlands

RE: The GOOD DESIGN AWARD® 2018 entry ID 7695

Dear Kostas Metaxas:

The Chicago Athenaeum: Museum of Architecture and Design and The European Centre for Architecture Art Design and Urban Studies are pleased to inform you that the following has won a 2018 GOOD DESIGN® Award:

• **The Statement**

Founded in Chicago in 1950, GOOD DESIGN remains the oldest and the world's most recognized program for design excellence worldwide.

This year, the Museum received a record number of submissions from the world's leading manufacturers and industrial and graphic design firms representing the most important and critical mass of influential corporations in the design industry from over 47 countries.

In October/November, the 68th GOOD DESIGN jury met in Los Angeles and New York and selected over 900 product designs and graphics from over 46 nations worthy of the GOOD DESIGN Award for their Design Excellence.

All awards will be posted shortly on the Museum's website at chi-athenaeum.org and www.good-designawards.com.

All award-winning products and graphic designs are published in the GOOD DESIGN Yearbook for 2018-2019. (Please see attached form.)

You may announce the 2018 GOOD DESIGN Awards in your press, promotion, and marketing materials.

If your firm would like to use the Museum's GOOD DESIGN Logo in connection with this product and its award for your marketing, advertising, product literature, product identification, and promotion materials, you may do so by entering into a licensing agreement with the Museum.

The standard license agreement is for two-years. This year, the Museum also is offering a five-year license for extended use. Please see attached form for details.

The GOOD DESIGN Logo is the world's most recognized public certification for consumer design excellence and is used by the world's foremost corporations, manufacturers, and designers to identify their product's design merit.

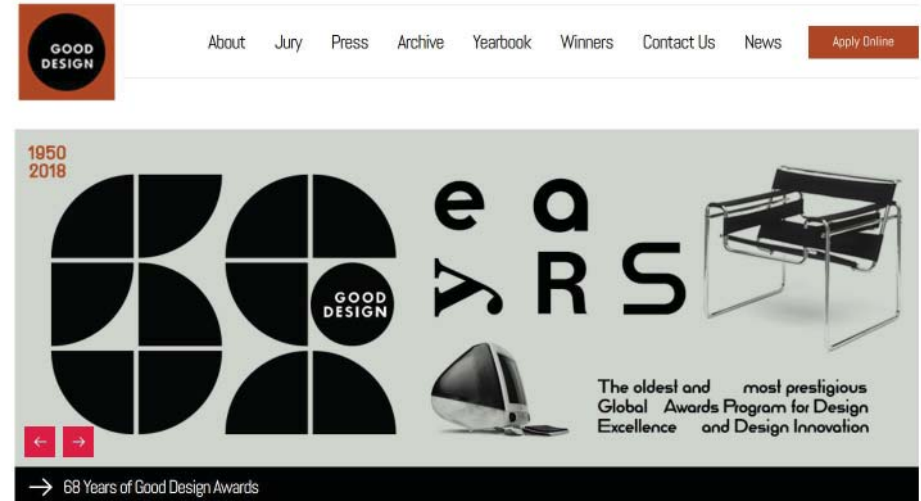
Again, congratulations for receiving the Museum's prestigious GOOD DESIGN Award for 2018.

The deadline for GOOD DESIGN 2019 is June 1, 2019.

If you have any questions, contact Jennifer Nyholm, Director of Communications at +815/777-4444 or FAX +815/777-2471 or email at jennifer@chicagoathenaeum.org.

Sincerely,

Ioannis Karalias, Architect
Museum Vice President
THE CHICAGO ATHENAEUM



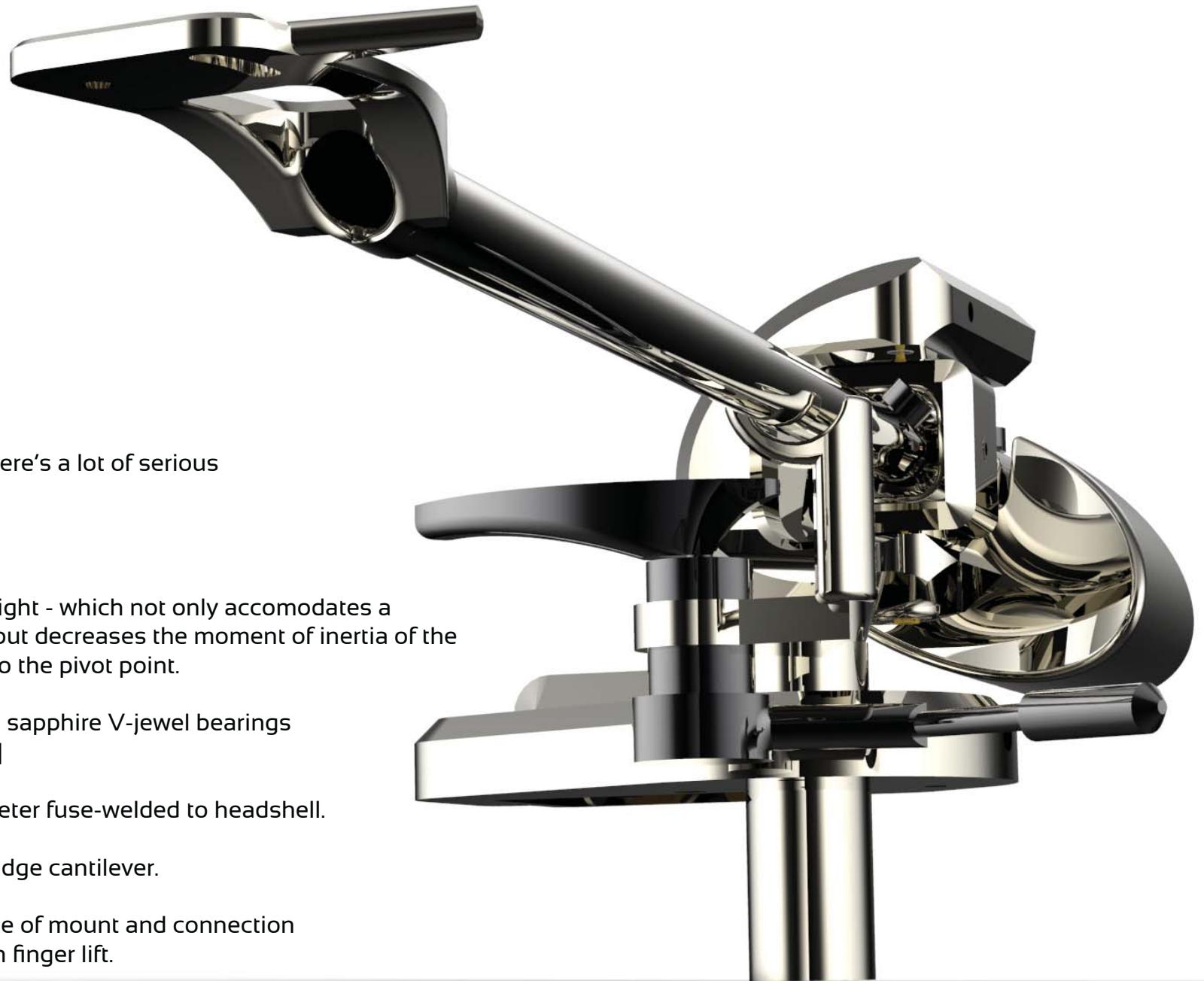
combobulator

(Noun) Usually a far-flung contraption usually designed to perform a mysterious process in order to manufacture an amazing or highly unusual product or outcome.

discombobulate

Discombobulate is a fun, fancy word for “confuse.”

The Combobulator carefully removes all the “discombobulation” when a tiny needle on a pickup stylus navigates the intricate grooves of a vinyl LP...



Despite looking like a sculpture, there's a lot of serious engineering in this arm:

1. 100% Titanium construction
2. Underswept Organic Counterweight - which not only accomodates a bigger range of cartridge weights, but decreases the moment of inertia of the arm by keeping the weight closer to the pivot point.
3. DIAMOND pivots [polished] into sapphire V-jewel bearings - adjustable and lockable [hex key]
4. Titanium tube with varying diameter fuse-welded to headshell.
5. Weight balance in line with cartridge cantilever.
6. Open sculpted headshell for ease of mount and connection [and weight reduction] with built in finger lift.

combobulator

Titanium Combobulator

Effective length pivot point to cartridge mounting hole = 230mm

Effective Mass

Headshell & Wand = 28 gms

Other parts:

Main V bearing holder = 74 gms

Base [RCAs] = 136 gms

First pivot assembly = 20 gms

Denon DL-304 Phono Cartridge Specifications

- Type: Moving coil
- Compliance: 14×10^{-6} cm/dyne
- Recommended tracking force: (1.2g +/- 0.2g)
- Weight: 7 g

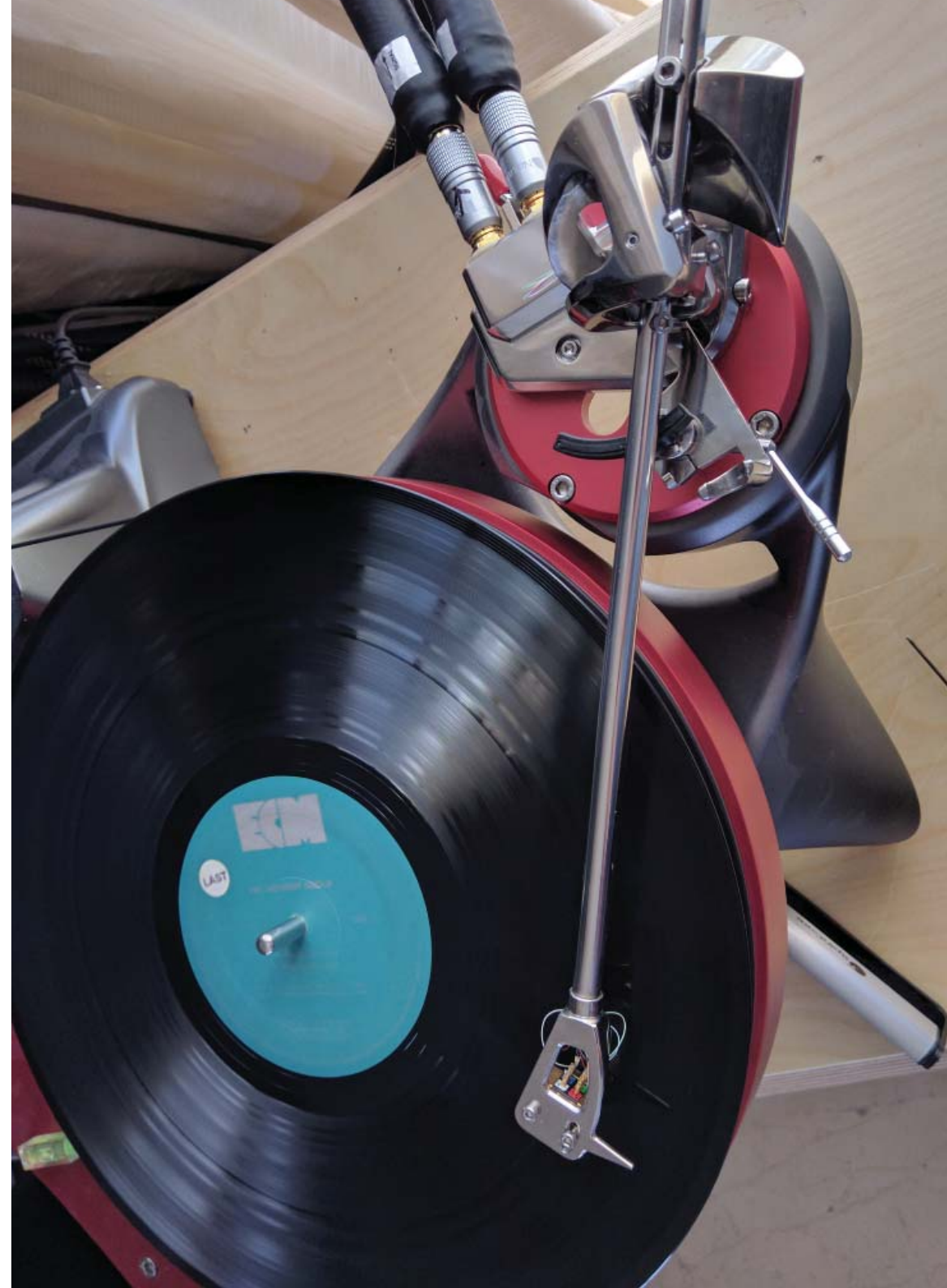
Resonant Frequency = $1000 / [6.28 \times \text{square root} (M \times C)]$. Where M is the mass of the arm and cartridge and C is the compliance of the cartridge. As an example, if we had an arm/cartridge with a combined mass of 14g, and a cartridge with a compliance of 20, the resonant frequency would be 9.535.

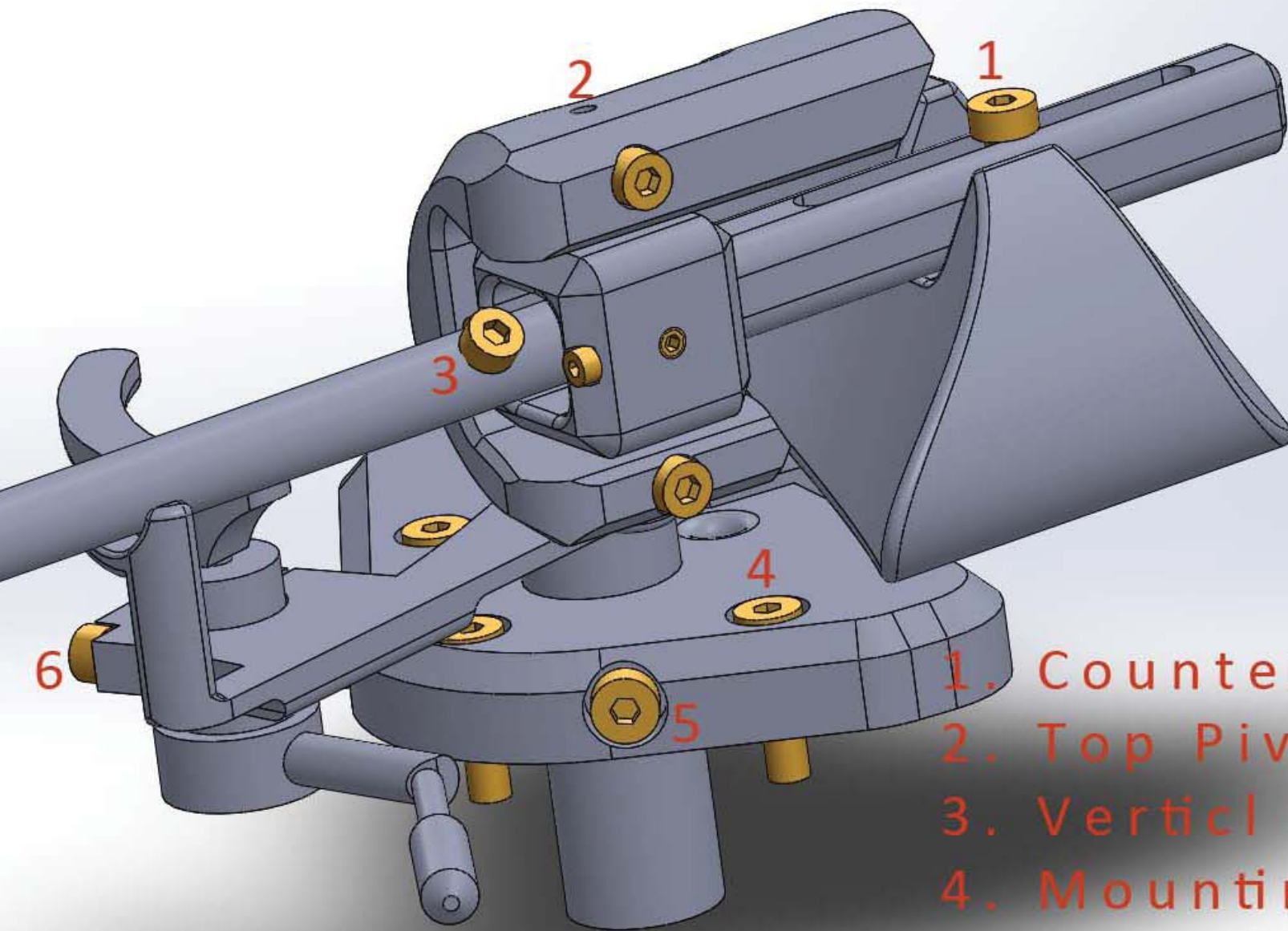
FR = $1000 / 6.28 \times \text{square root} [M \times C]$

= $1000 / 6.28 \times \text{SR } 14 \times 28$

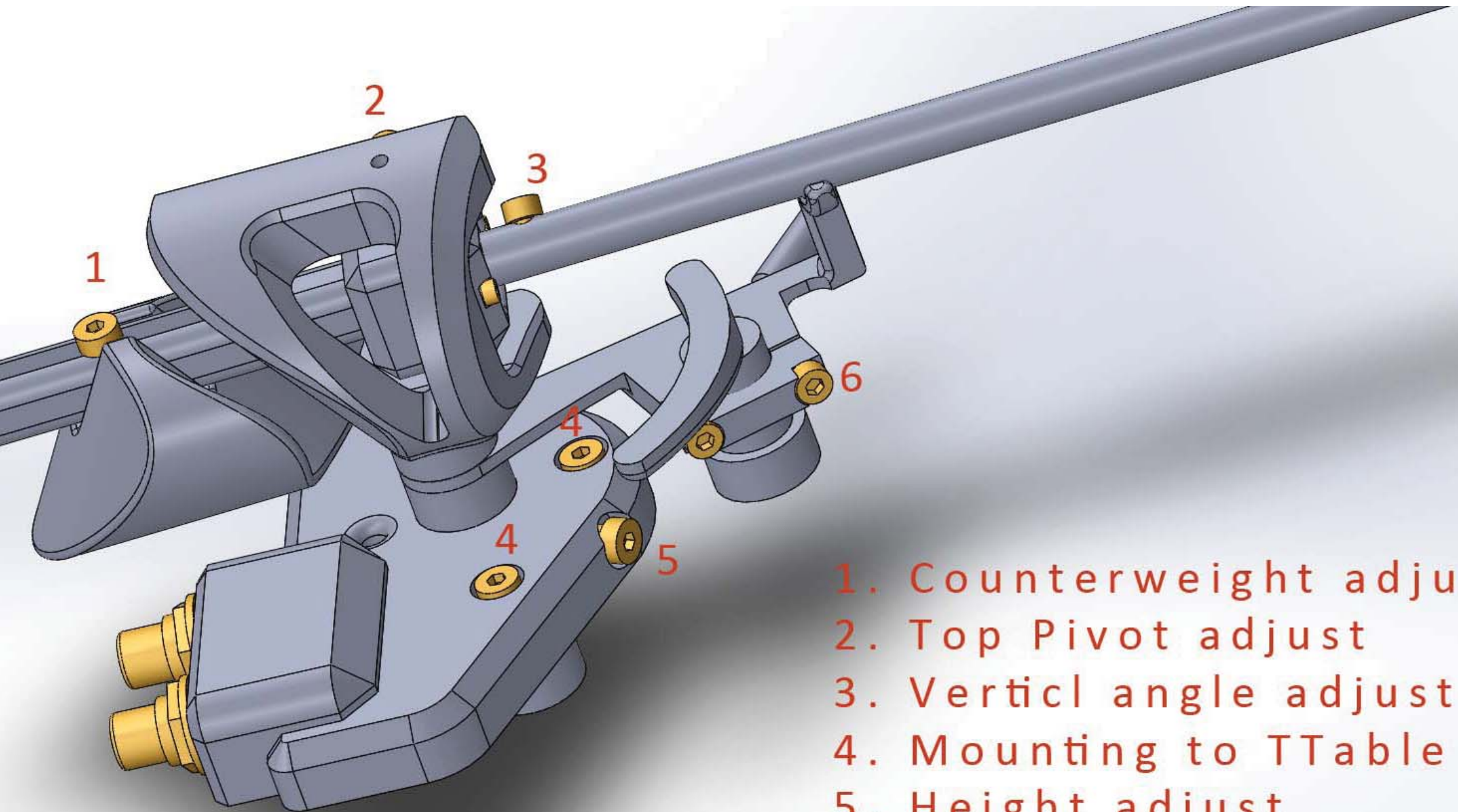
= 8 Hz

1 μ m/mN equals 1cm/dyne X (10⁻⁶).





- 1. Counterweight adjust
- 2. Top Pivot adjust
- 3. Vertical angle adjust
- 4. Mounting to TTable
- 5. Height adjust
- 6. Rest adjust



1. Counterweight adjust
2. Top Pivot adjust
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installation



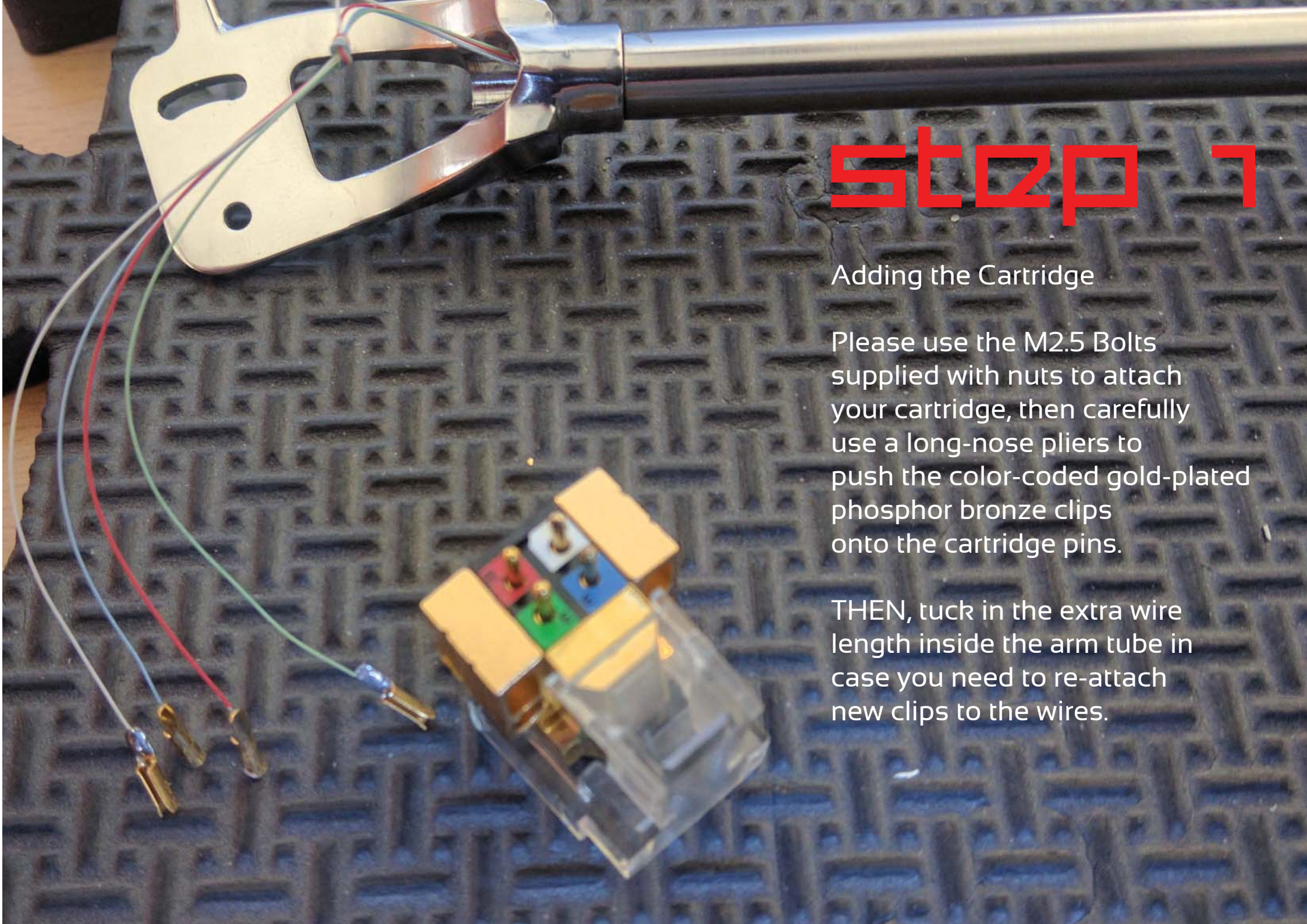
IMPORTANT: THIS PROCEDURE SHOULD ONLY BE DONE BY SOMEONE WHO HAS SERIOUS EXPERIENCE WITH SETTING UP TONEARM/CARTRIDGES AS YOU CAN EASILY DAMAGE THE CARTRIDGE AND TONEARM IF YOU'RE NOT CAREFUL ... NORMALLY PERFORMED BY YOUR DEALER

step 7

Adding the Cartridge

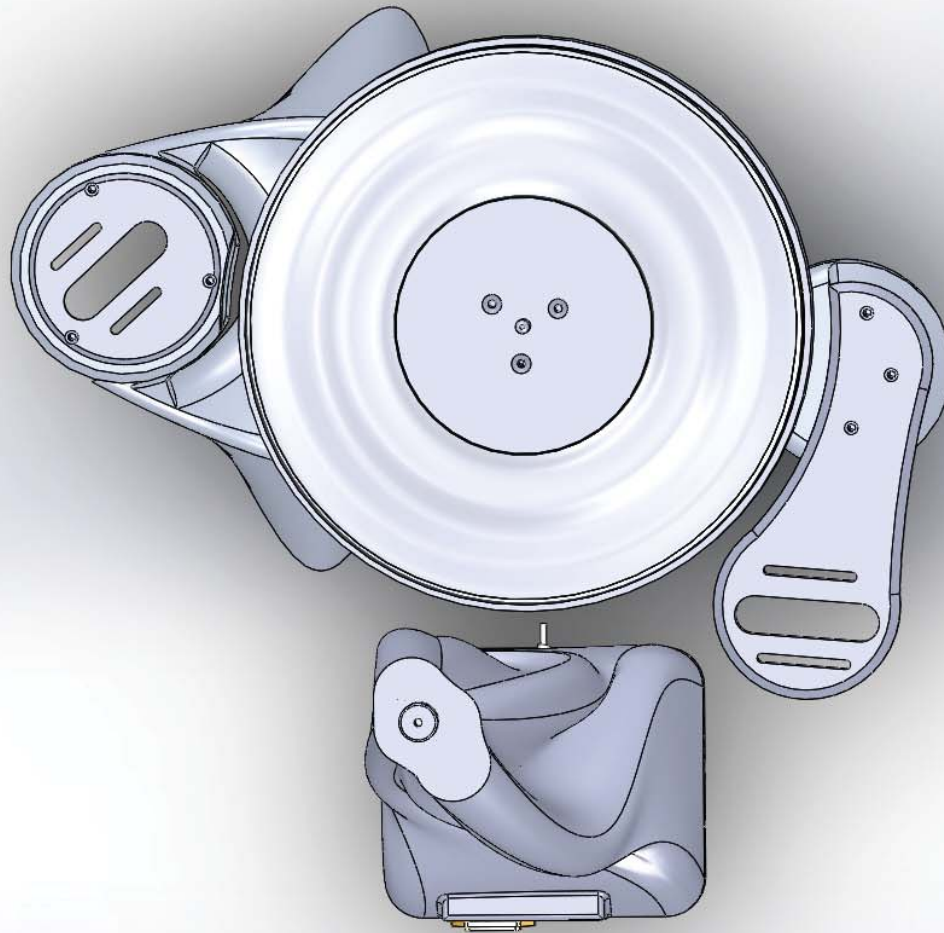
Please use the M2.5 Bolts supplied with nuts to attach your cartridge, then carefully use a long-nose pliers to push the color-coded gold-plated phosphor bronze clips onto the cartridge pins.

THEN, tuck in the extra wire length inside the arm tube in case you need to re-attach new clips to the wires.



stop 2

You have a choice of 2 arm boards on the PERAMBULATOR to mount your COMBOBULATOR

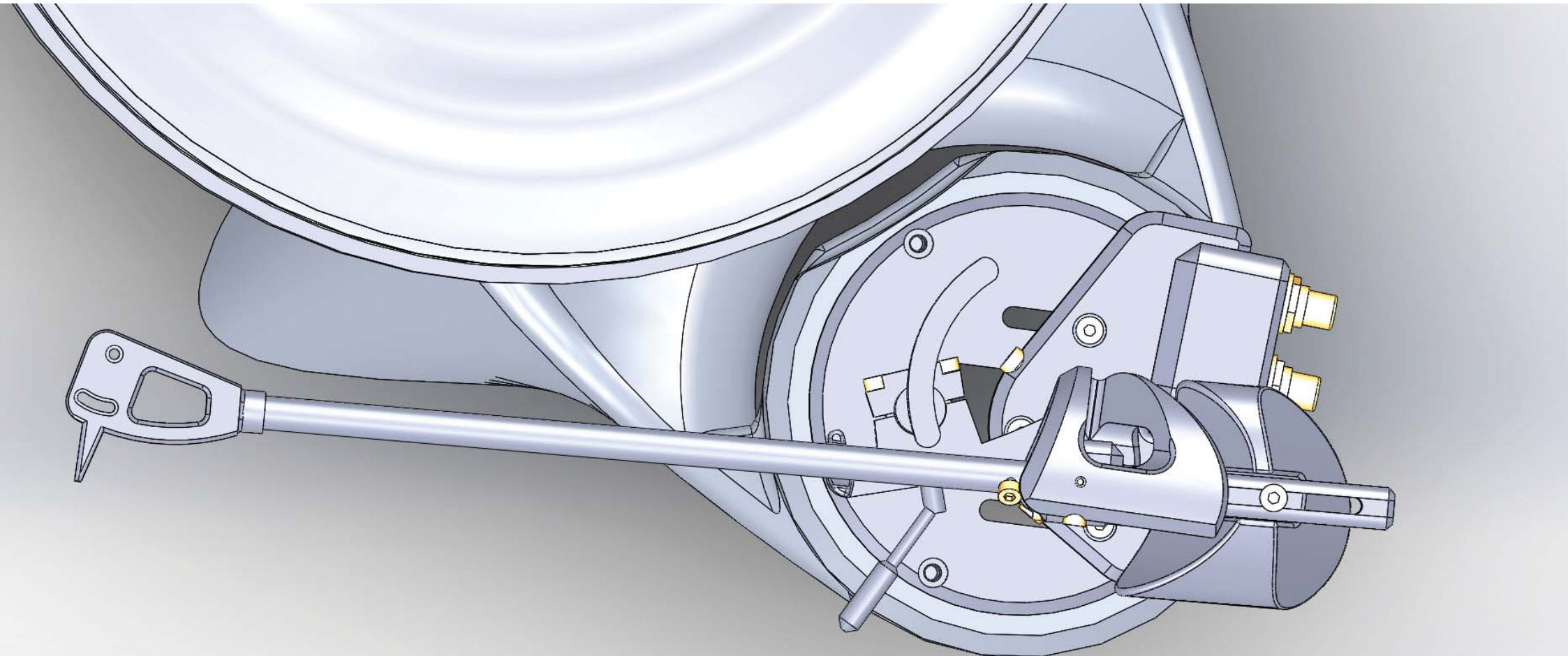


Standard Mount.

Use the M4 bolts supplied to attach the ARM BASE to the turntable arm-plate.

You can then slide the arm to align the cartridge tip for optimum geometry

stop 3



stop 4



SETTING ARM LEVEL

Use the M4 wrench to loosen the 2 x M4 bolts so that you can carefully level the tonearm tube with the platter surface

STOP 5

Setting CARTRIDGE TRACKING FORCE
Loosen the M4 bolt on the arm weight
and slide back-forth until the
correct tracking force is measured.



stop 6

Setting ARM LIFT LEVEL

Loosen the 2 x M3 bolts [it might be helpful to remove the acrylic platter for this step] and adjust the height of the ARM LIFT device so it works correctly. In the down position, there should be at least 1.5mm clearance between arm & platform. Be careful to check that the device works [goes up-down] once you've adjusted the height.

ADJUSTING VERTICAL BEARINGS

You only need to adjust the TOP BEARING - leave the bottom bearing LOCKED. You can adjust to the "feel" or via listening. The ultimate setting is exactly at the point where there is no friction, just before the bearing might rattle.

If the VERTICAL BEARING is too tight, the arm will stay in the same groove, too loose you'll hear it as "chatter" in the music.

stop 7



ADJUSTING VERTICAL BEARINGS

Leave the opposite side LOCKED and only work on the visible bearing [shown with alundriver poking out of].



As important as VTA...for those who haven't played with bearing tension in your tonearm, you simply haven't heard your tonearm...and it can only be adjusted by feel, but final listening tests will tell you when it's optimum [a sense of "freeing up" of the sound - no restrictions].



stop 9

ADJUSTING VERTICAL TRACKING

The M3 alun bolt on the arm tube near the main pivot allows the rotation of the arm tube to make sure that the STYLUS is exactly perpendicular to the groove.

step 70



RCA CABLES
Our ENOSSIS pure
SILVER cables work
well with the Combobulator.
NOTE: Make sure you connect
a GND WIRE to the third
terminal and link it to your
preamplifier PHONO GND



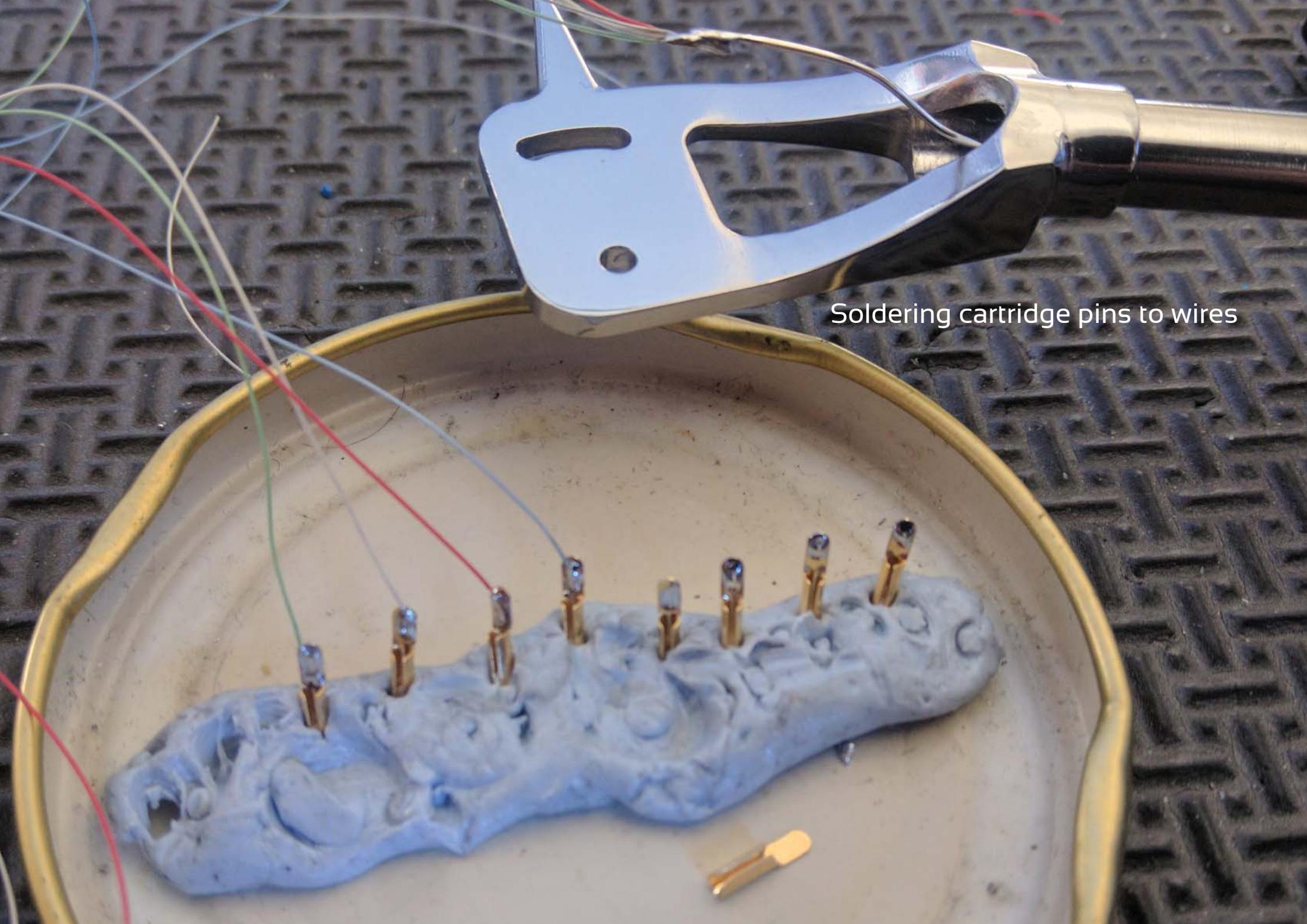
assembly



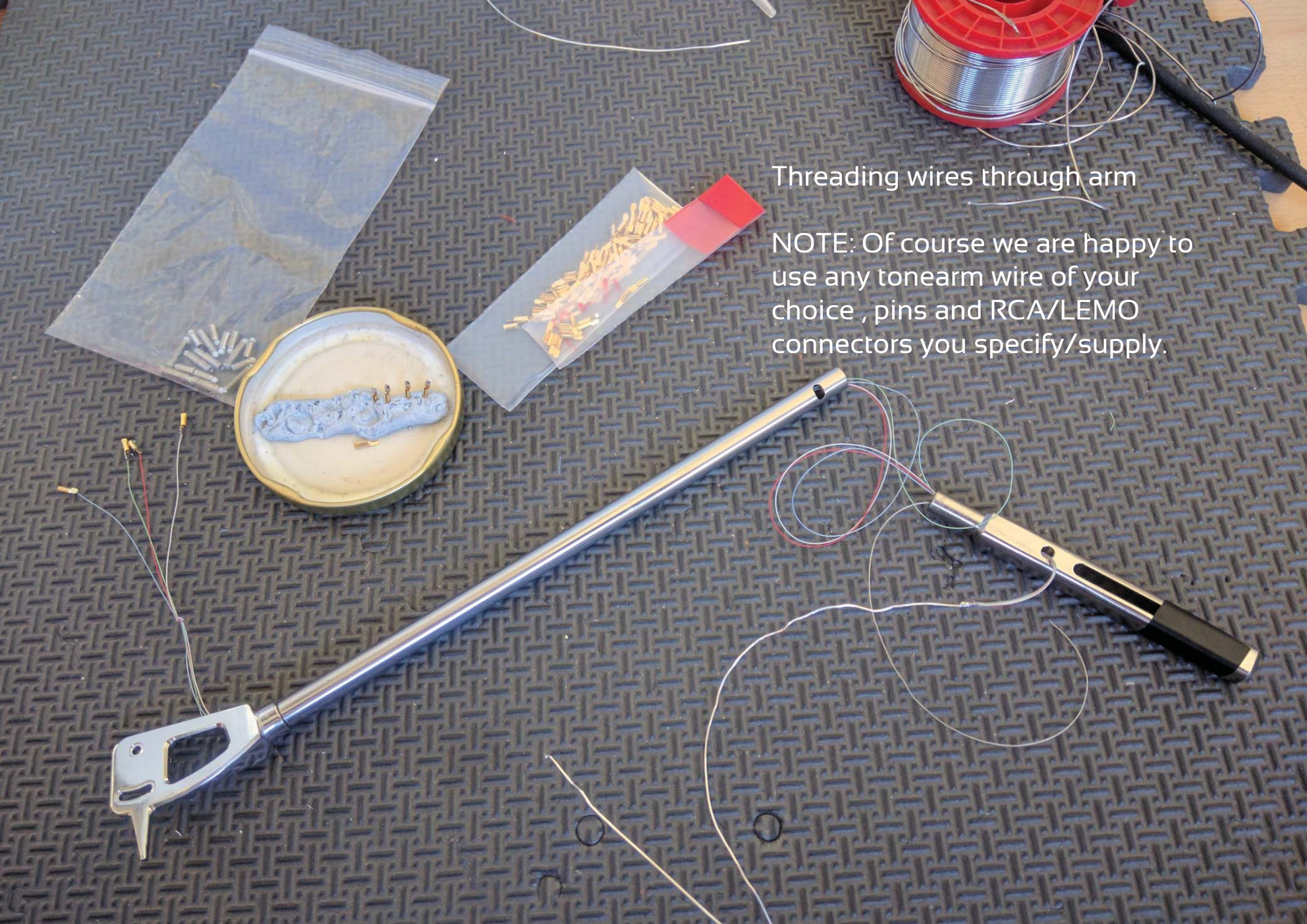
Handwritten notes on a piece of paper:

- AXS
- Q20K - 300K
- 6TB - 200
- 100K - 150
- R - 200
- 50K - 50
- 2K4 - 300
- 4K7 - 200
- R8
- 50K
- 68





Soldering cartridge pins to wires

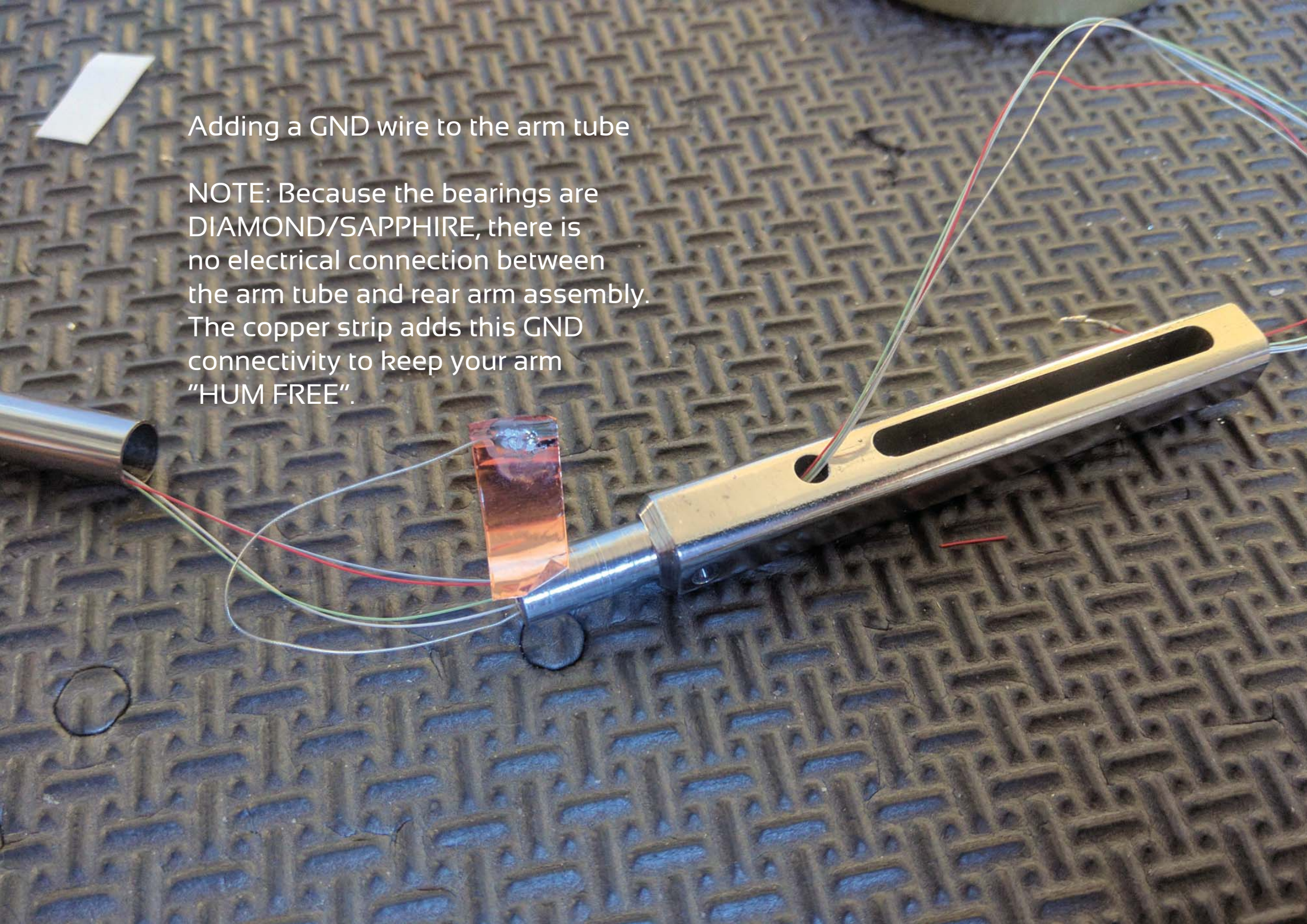


Threading wires through arm

NOTE: Of course we are happy to use any tonearm wire of your choice , pins and RCA/LEMO connectors you specify/supply.

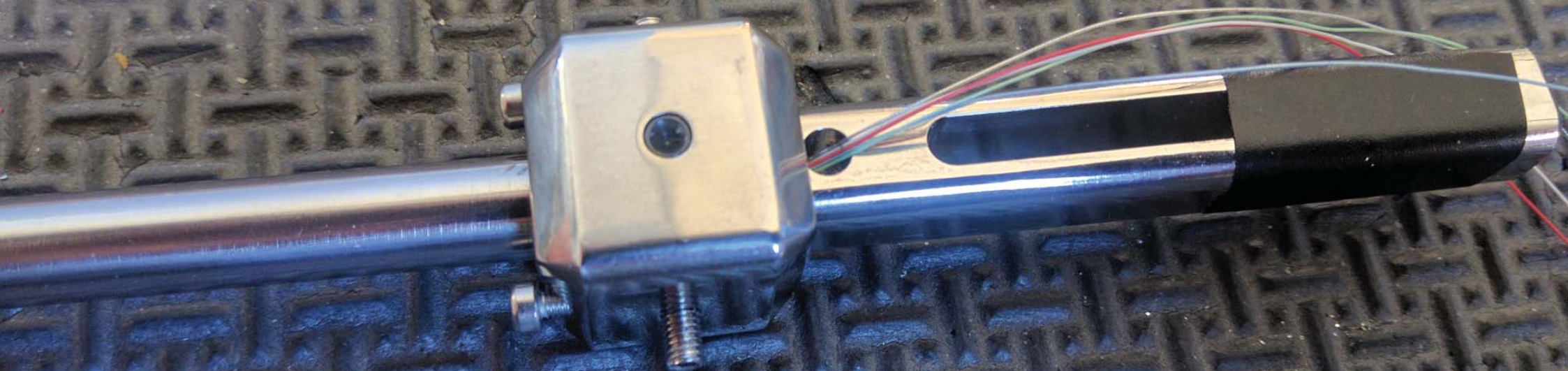
Adding a GND wire to the arm tube

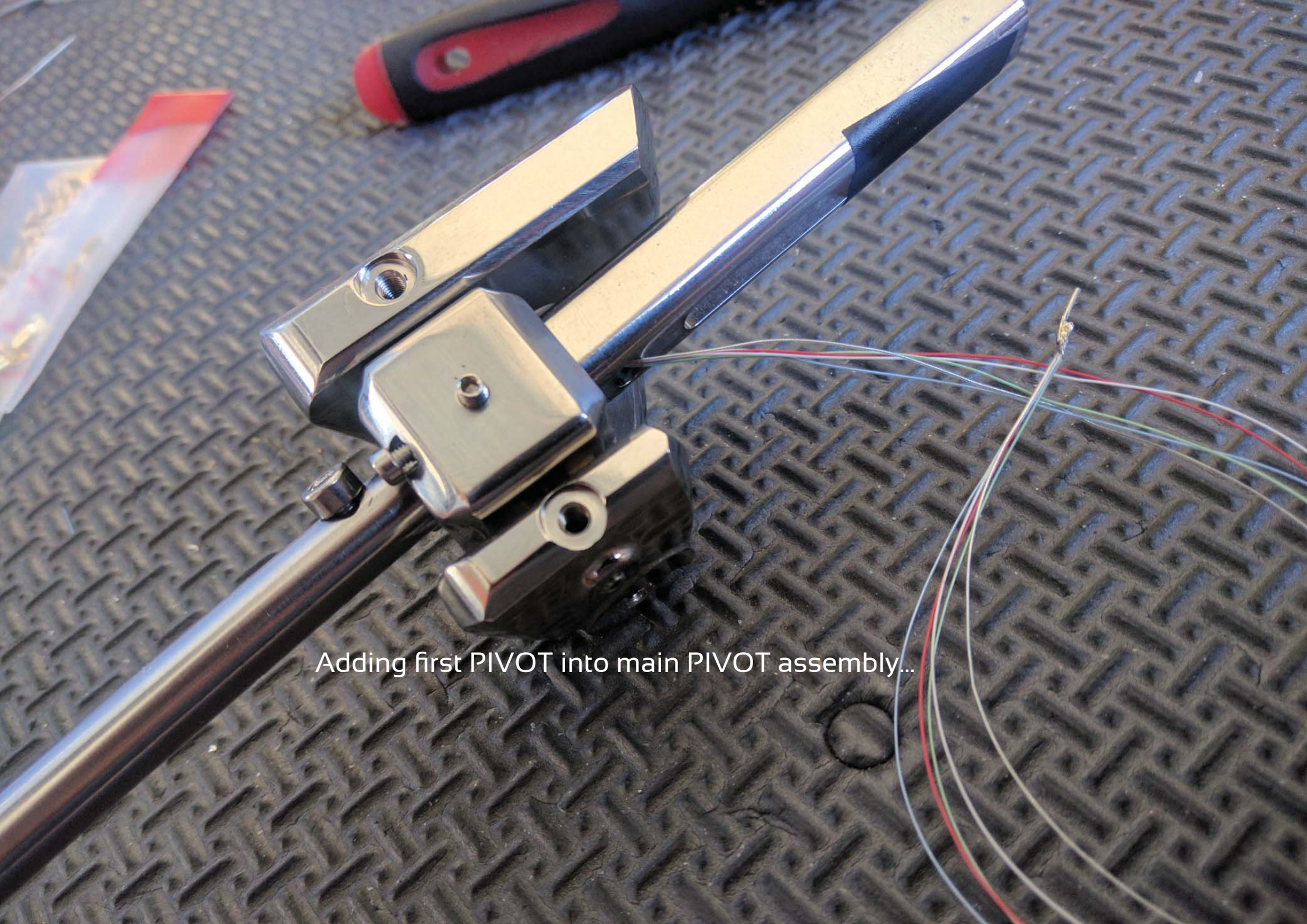
NOTE: Because the bearings are DIAMOND/SAPPHIRE, there is no electrical connection between the arm tube and rear arm assembly. The copper strip adds this GND connectivity to keep your arm "HUM FREE".



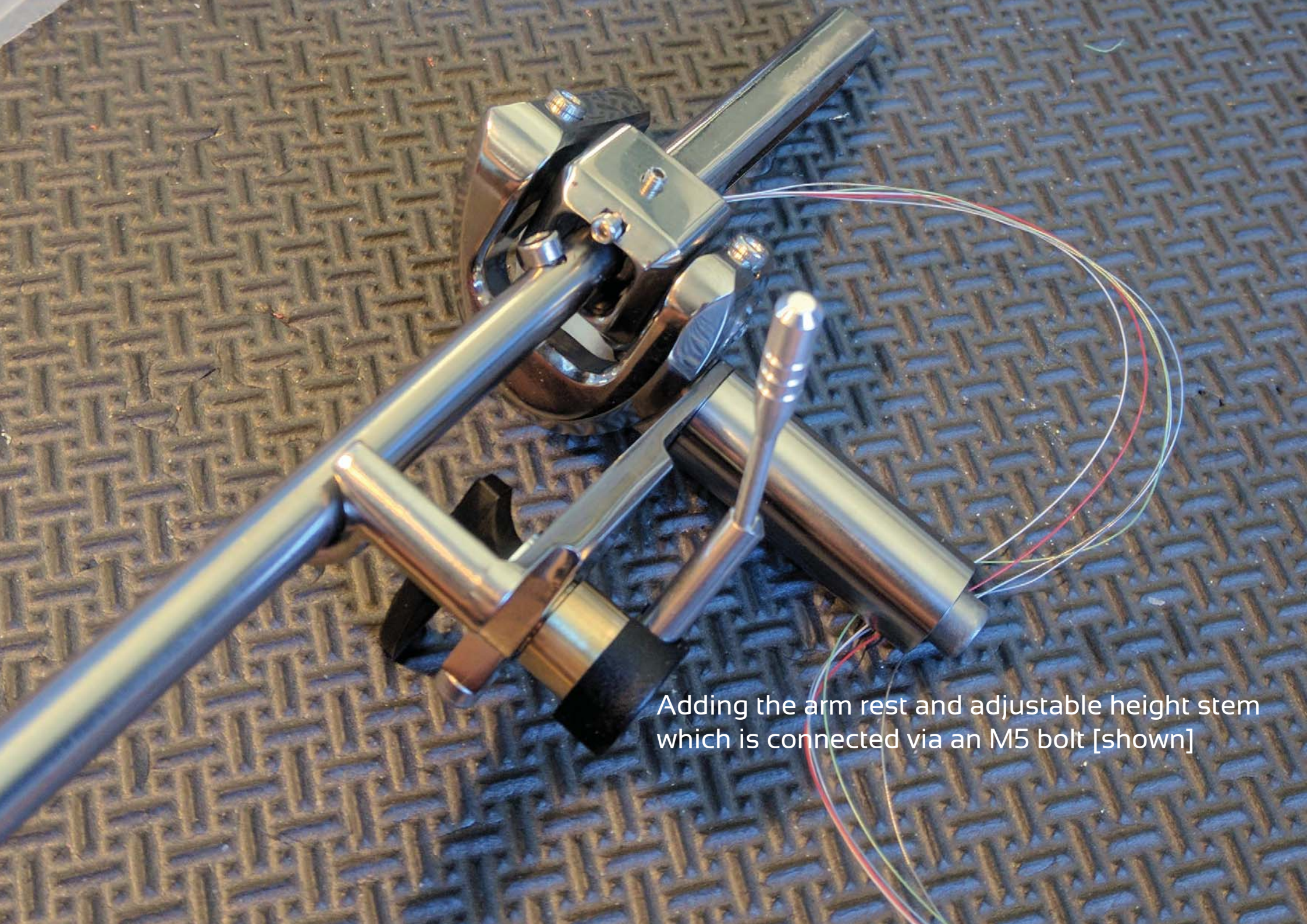


Mounting first PIVOT with Diamond pearls into Sapphire V-Jewels.

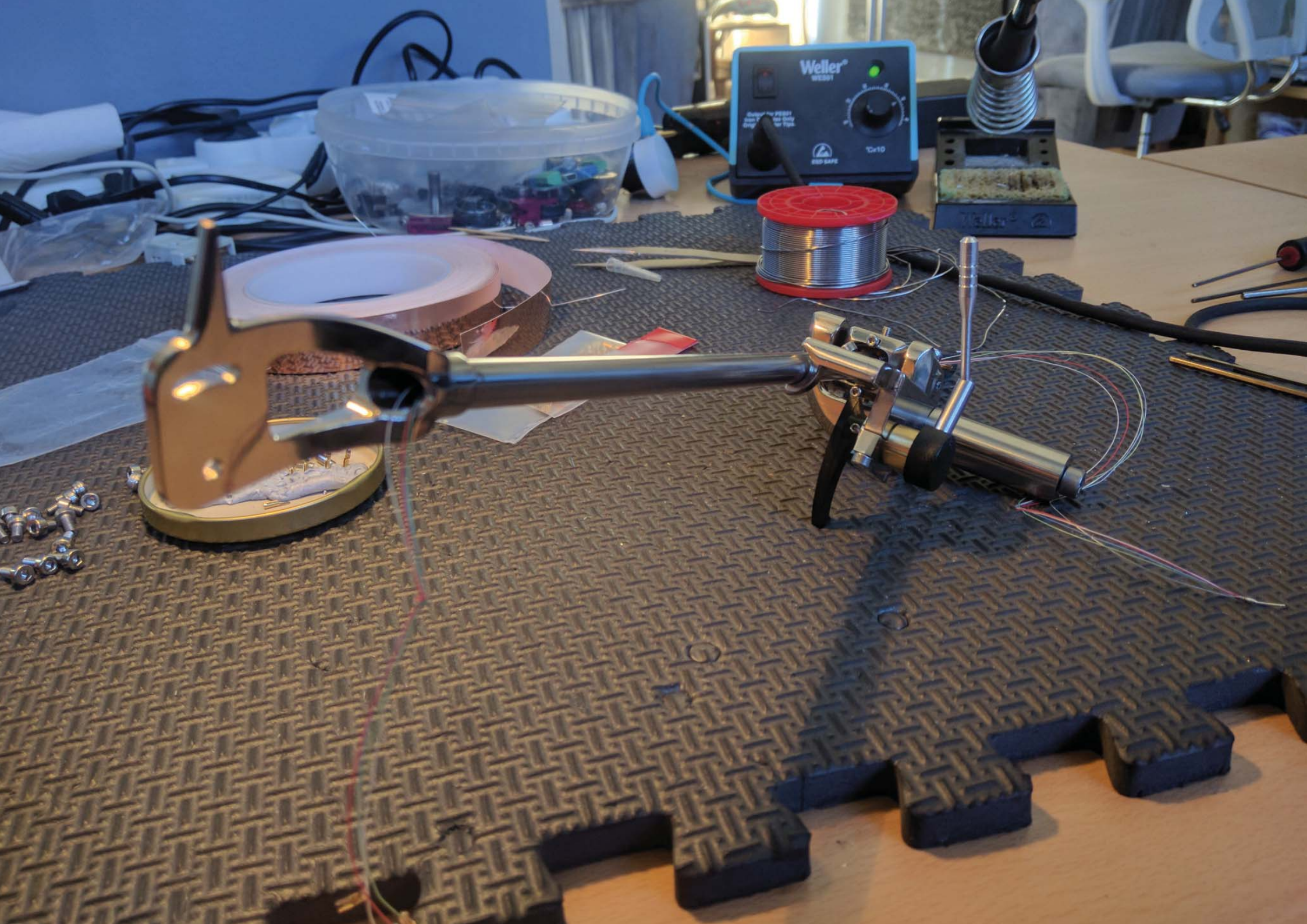


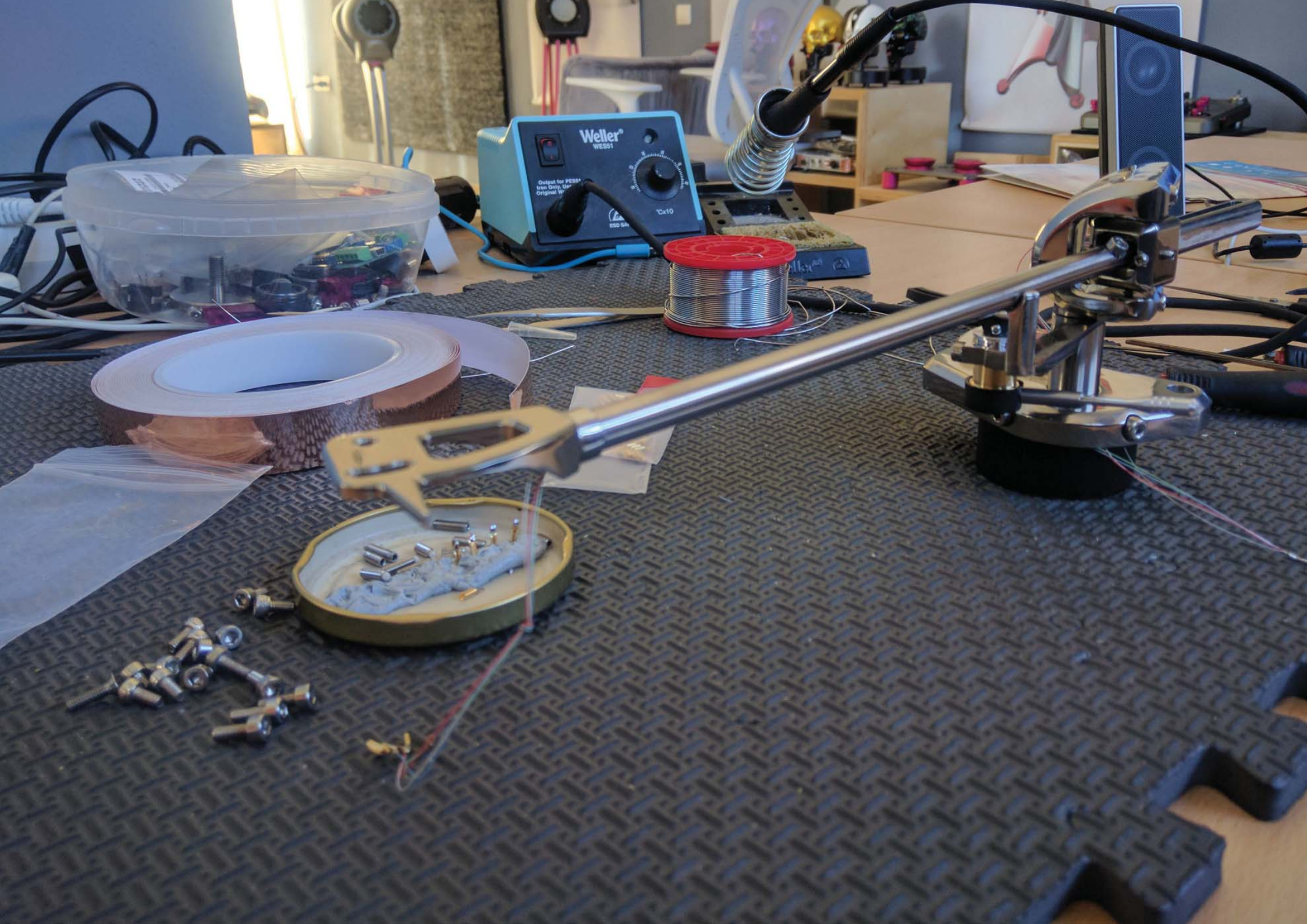


Adding first PIVOT into main PIVOT assembly...



Adding the arm rest and adjustable height stem which is connected via an M5 bolt [shown]





Weller
WES91
Output for PDS
Iron Only, Use
Original
ESD SAFE
°C x10

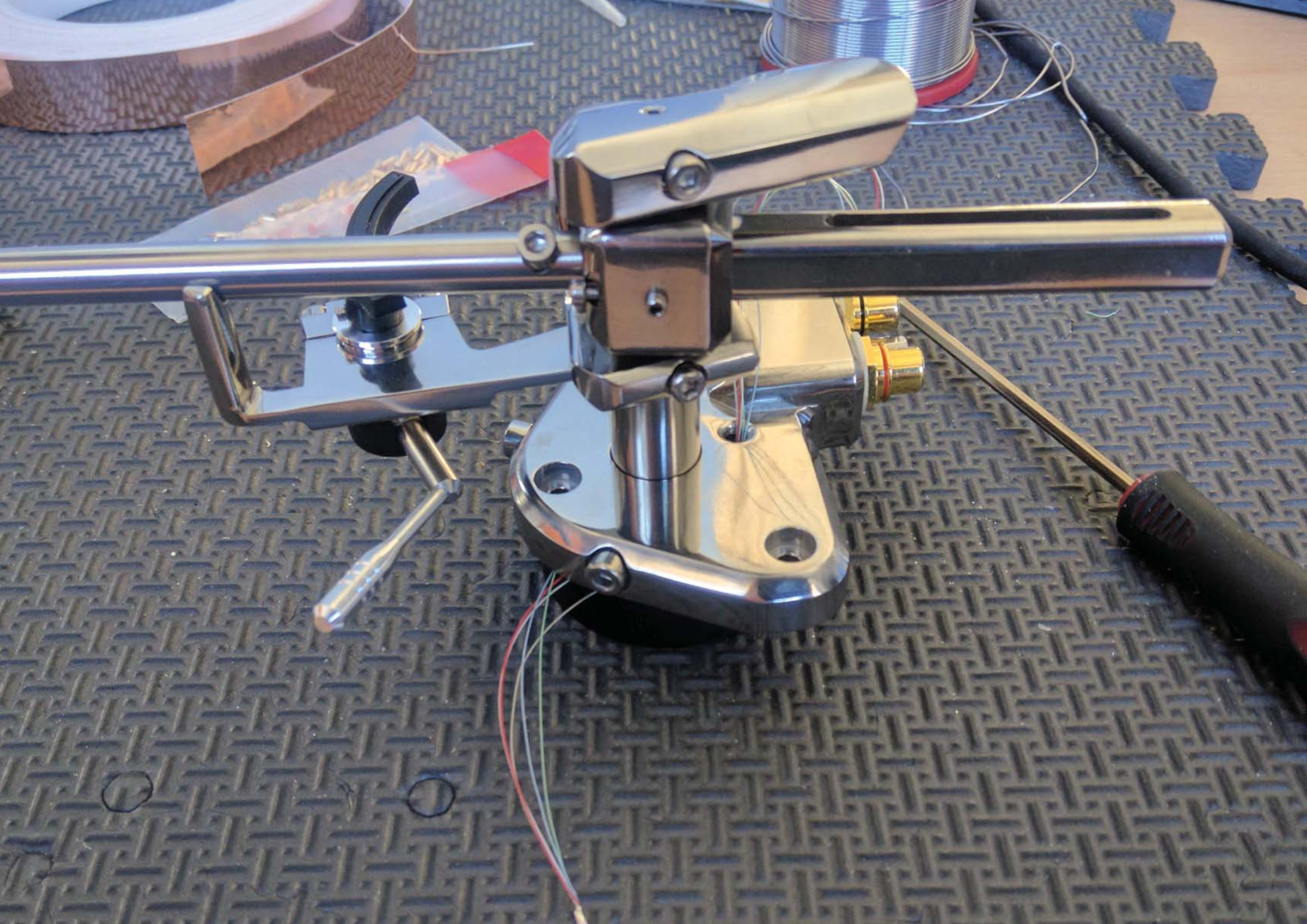
Red spool of solder

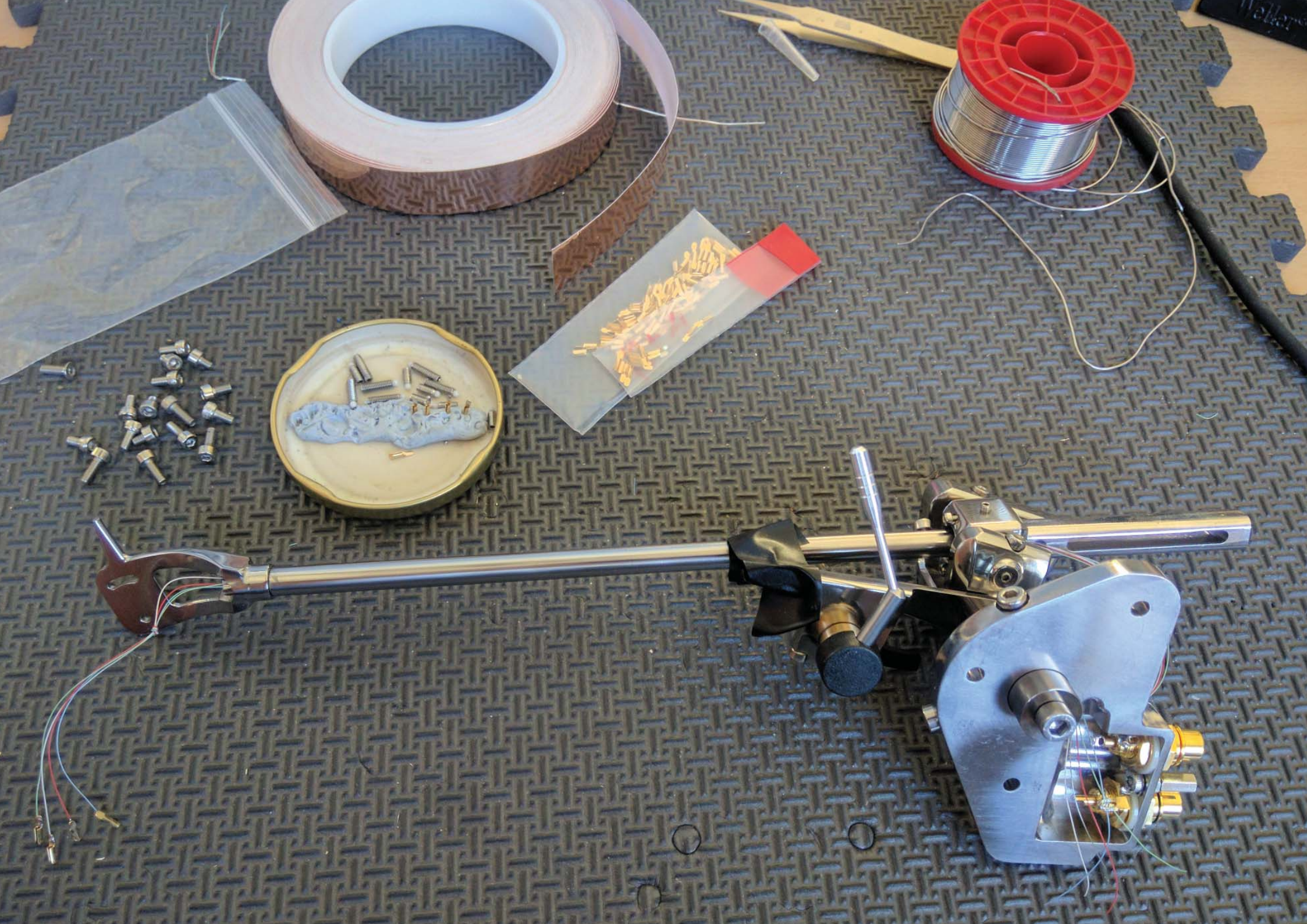
Small green PCB with components

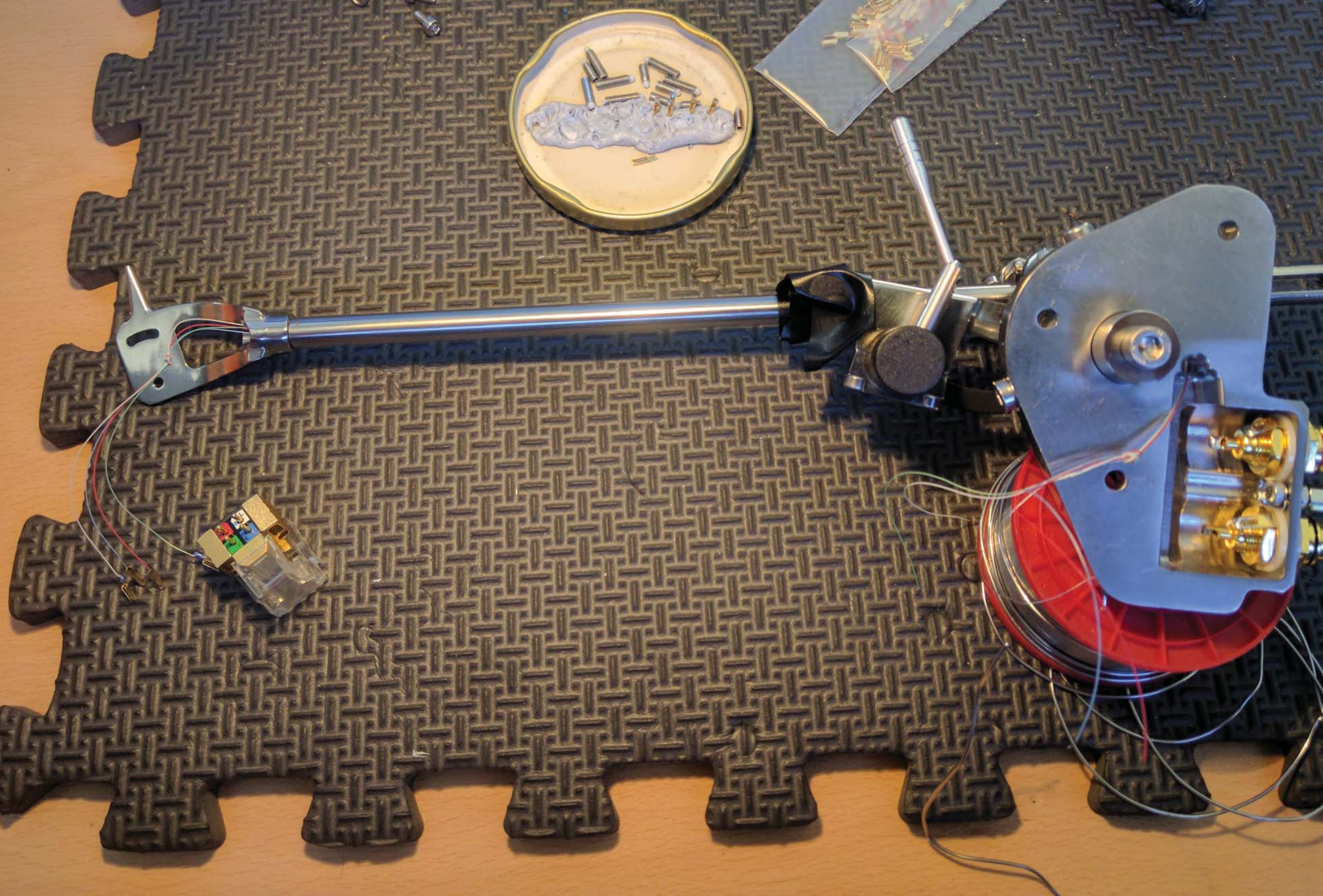
Small metal fasteners

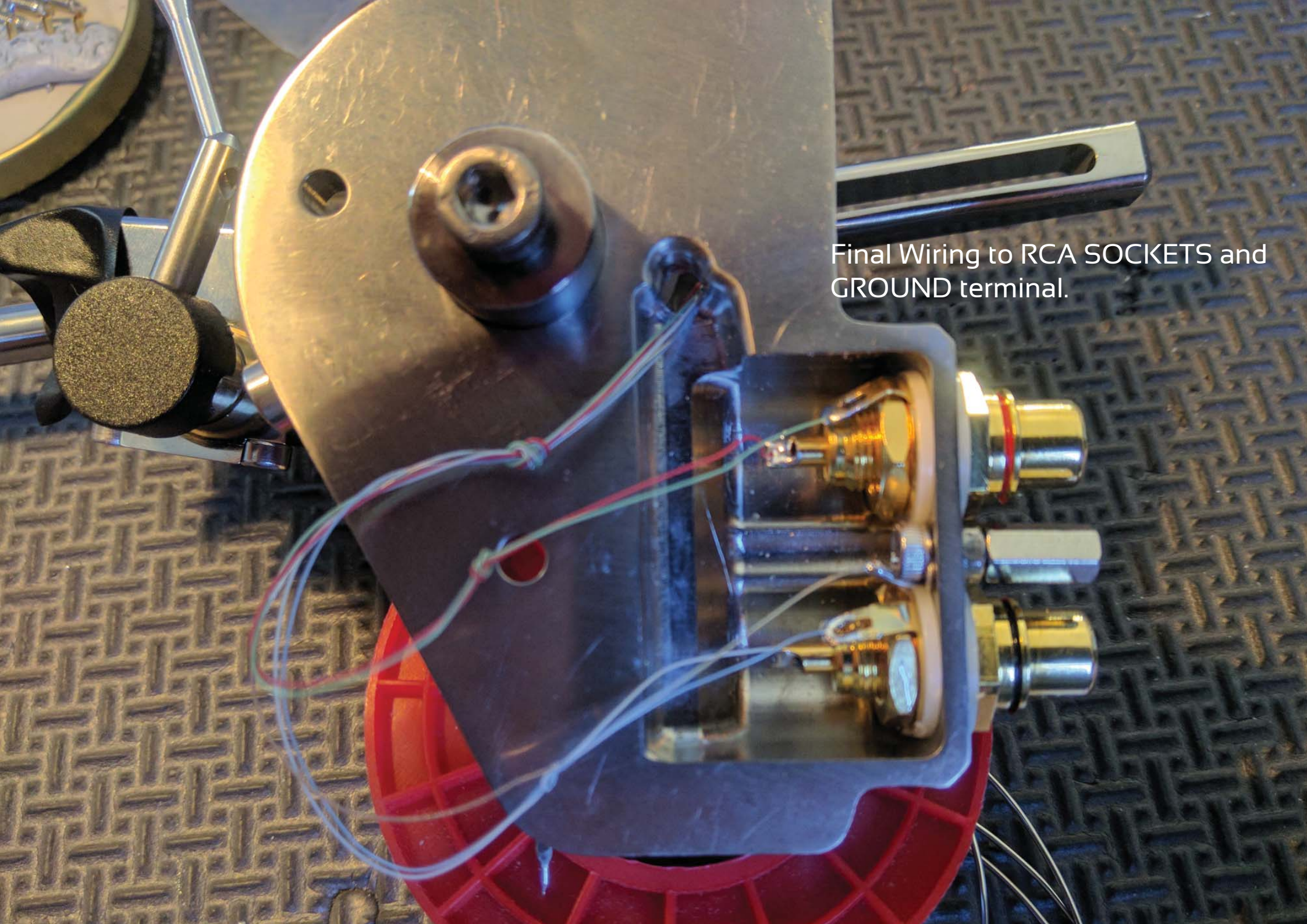
Roll of copper tape

Clear plastic bin with components





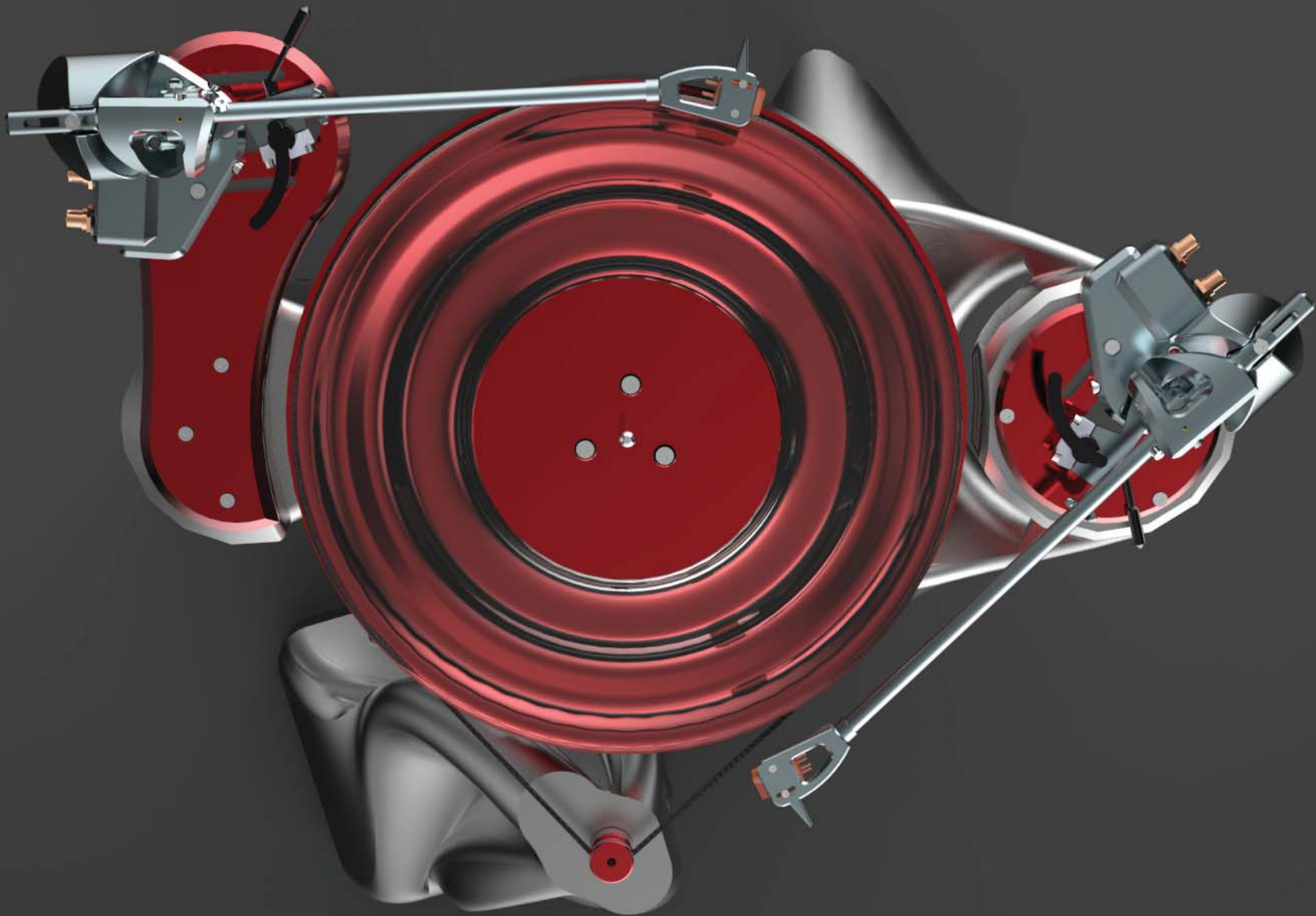




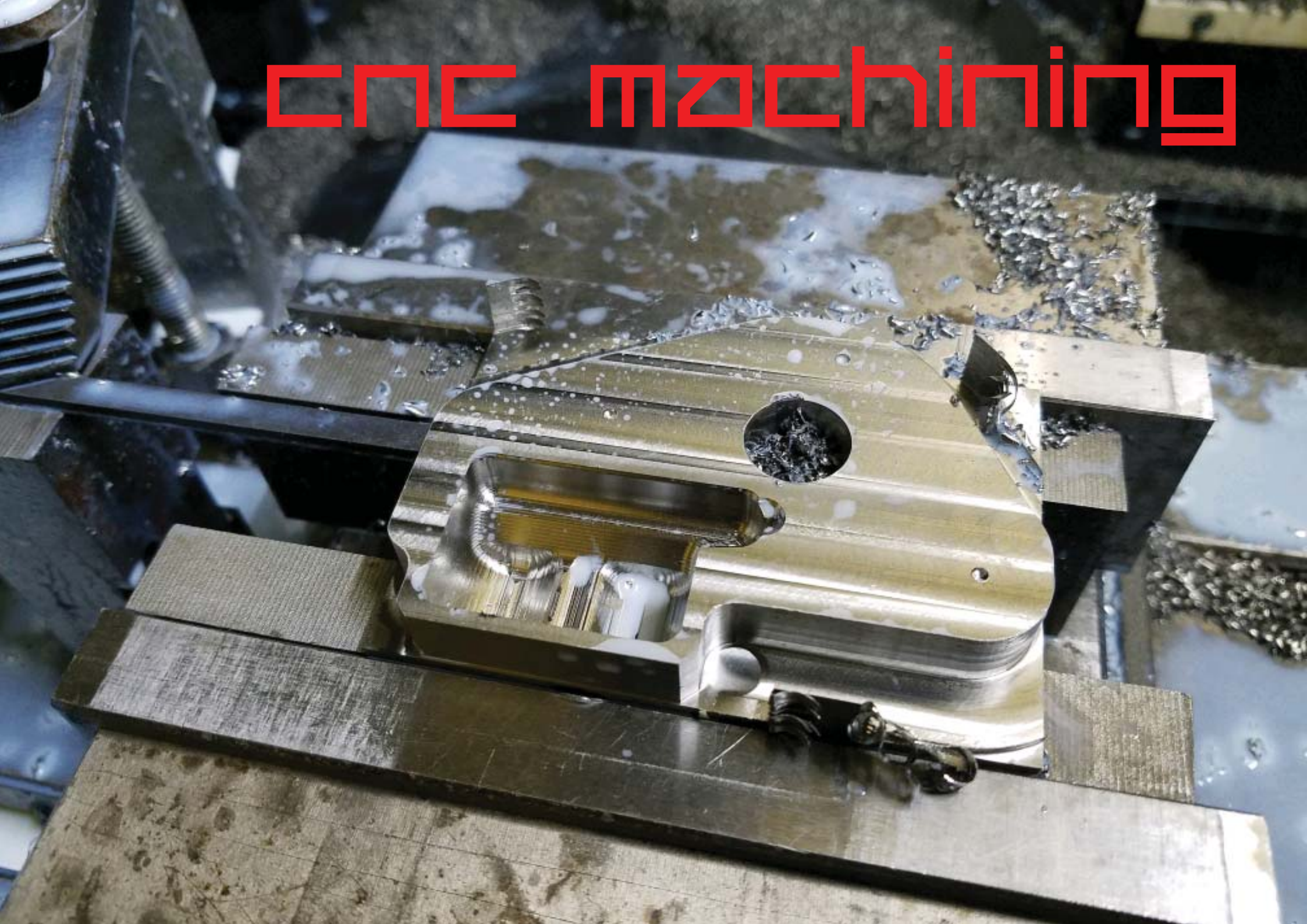
Final Wiring to RCA SOCKETS and GROUND terminal.



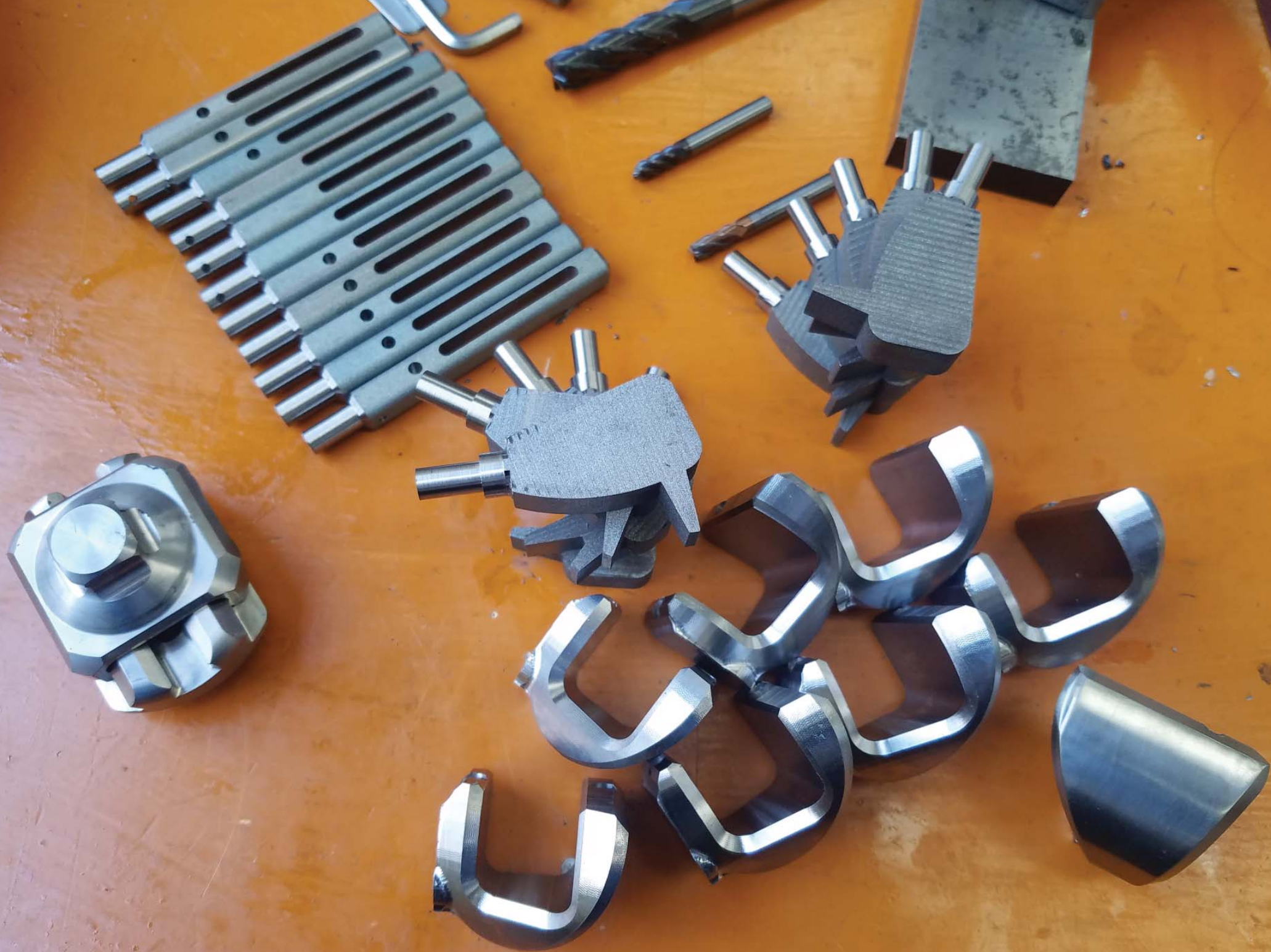




cnc machining

















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