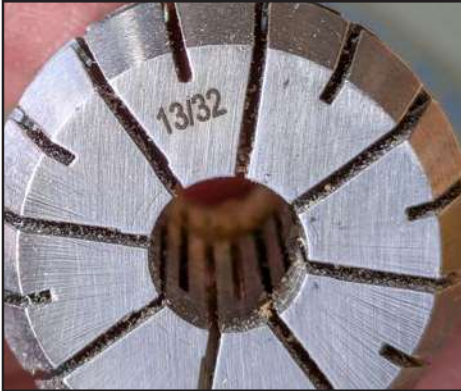




a **PART** of the story

The metric system

by **Jim Coffee** • San Diego, California, USA • Photos by the author



1. I will be replacing my Imperial collets with metric collets. No more fractions!

I was surprised to learn that 95% of the world uses the metric system for measuring. Only the United States and a few other small entities use the Imperial (inches, pounds, etc) system. What has this got to do with automata?

I believe that there are at least three ways that an automatist would benefit by using the metric system over the Imperial system. I feel strongly enough about this that I am converting my studio from Imperial to metric. I plan to enter the 2026 New Year fully



2. My current default fastener size is 2-56. After the conversion to metric my default fastener size will be M3.

converted to metric. Why?

- The metric system is simpler to use.
- There is a wider range of metric components available than Imperial, and these seem to be available at a lower cost.

• Serviceability. In the long run, the metric system is dominant and, in the end (in my opinion), will be *the* measurement system. Automata created today to Imperial standards will be more difficult to repair and service as the

decades and centuries roll on.

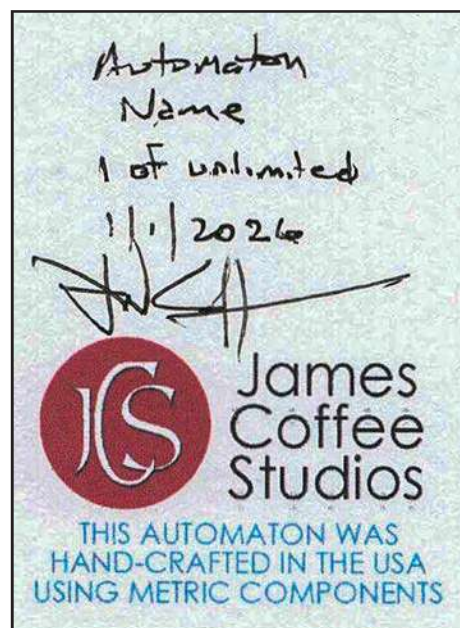
In my case, because of the things that I have been creating and the new tools that I have acquired, I have learned how to best use the metric system. I really like it.

It was not until I learned that only 5% of the world uses Imperial measurements that I considered a switch to metric. I wish I had considered the switch years earlier. The final straw for me was my lathe collets. I purchased a new lathe last year, then purchased a nice set of collets, with the different size designations in fractions properly etched onto each one (**photo 1**).

Fractions! I had never thought of a world without fractions until I began working with the metric system. A world without fractions is a beautiful world.


I made the decision that I would begin 2026 (perhaps sooner) working from a metric art studio. I made this decision for several reasons, outlined above. If my automata are to live into the future, they need to be maintainable. It seems to me to be just plain stupid to be working with the Imperial system when it is obvious that the future is metric.

At age 79 I am converting my studio to the metric system. This means that I'm going to place all of my Imperial components (**photo 2**) inconveniently out of reach, and I will maintain stocks of metric components. In my case, I believe this conversion will cost me approximately \$600-\$700.



3. This maker's mark will be fastened onto each automaton that I create. Note that it indicates metric.

M3 will be my default fastener size and 2mm and 5mm shafting (and bearings, collars, etc) will be my default motion-transfer sizes. Additionally, on my "studio mark" I will indicate metric (**photo 3**).

If you live in the United States and you are young and just getting into this wonderful little world of automata, I highly recommend that you begin your journey from a metric studio. If you are older and more established in your studio, I suggest that you consider a switch from Imperial to metric. 



"In My Humble Opinion"



by Philip Lowndes

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