Advancements in mechanical engineering spell hopeful development of autonomous biobots

We live in a modern world that, like it or not, is paved with good intentions and technological advancement. In recent decades, we have steadily become more and more focused on advancing our own progress on Earth. And in recent years, that means more and more often that we are investing more energy, money, and time into digitalisation and technological advancement. As a result, the world around us has become more efficient than ever. Technological enhancement is all around us today – even in the most unexpected of places.

As far as engineering fields go, there is perhaps no branch of engineering that is as exciting or as futuristic in its nature as mechanical engineering. Interestingly, mechanical engineering is in fact responsible for far more around us than many of us are even aware of. Whether it is the gas fireplaces in homes around the world, or the advancements in robotics that are spelling a clear pivot towards technological enhancement more and more all the time. But what exactly is mechanical engineering, and what are some of its current focuses?

What is mechanical engineering?

Essentially, mechanical engineering refers to the practice of engineering that "applies engineering physics, engineering mathematics, and materials science principles to design, analyse, manufacture, and maintain mechanical systems". Mechanical engineering is one of the oldest of the engineering fields, as well as being one of the most broadly applicable. This makes it a multitool for the ages. Additionally, the ongoing advancements in mechanical engineering are all about giving the world a more convenient and capable atmosphere. Which is where the latest and greatest research and development in mechanical engineering comes into play.

New development towards autonomous biobots

One of the most impressive advancements in mechanical engineering as of late is the development of soft robotic devices that are "driven neuromuscular tissue that triggers in the wake of light stimulation". This advancement might seem simple enough, but it spells a hopeful step towards the development of autonomous biobots. In essence, biobots are essentially the result of utilising synthetic material and tissue from living creatures (think bones, muscles, or nerves) to ultimately create a mechanical device that can move on its own. Still in the early

developmental stages right now, this is nonetheless an exciting step in the direction of creating autonomous biobots.

So, what is next?

The successful development of these types of robotics would spell an entirely new step for robotics – one that, perhaps in the not-so-near future, could be utilised in collaboration with AI advancements to create the ultimate robotics. Of course, these days are not quite here yet, but this is a remarkable time for mechanical engineering and the pivot towards the successful realisation of autonomous biobots. There are of course many hoops to jump through, but these are definitely positive steps in the right direction. If ever there was a time to keep a watch on this type of engineering, it is now. Watch this space.