

## IBM chip mimics brain, marks advancement in artificial intelligence

The human brain is the world's most sophisticated computer capable of learning new things on the fly, using very little data. It can recognise objects, understand speech, respond to change.

Since the early days of digital technology, scientists have worked to build computers that were more like the three-pound organ inside your head.

Most efforts to mimic the brain have focused on software, but in recent years, some researchers have ramped up efforts to create neuro-inspired computer chips that process information in fundamentally different ways from traditional hardware. This includes an ambitious project inside tech giant IBM, and today, Big Blue released a research paper describing the latest fruits of these labours.

With this paper, published in the academic journal *Science*, the company unveils what it calls TrueNorth, a custom-made “brain-like” chip that builds on a simpler experimental system the company released in 2011.

TrueNorth comes packed with 4,096 processor cores, and it mimics one million human neurons and 256 million synapses, two of the fundamental biological building blocks that make up the human brain.

IBM calls these “spiking neurones.” What that means, essentially, is that the chip can encode data as patterns of pulses, which is similar to one of the many ways neuroscientists think the brain stores information.

**Read the full, original story: [IBM reveals ‘brain-like’ chip with 4,096 cores](#)**