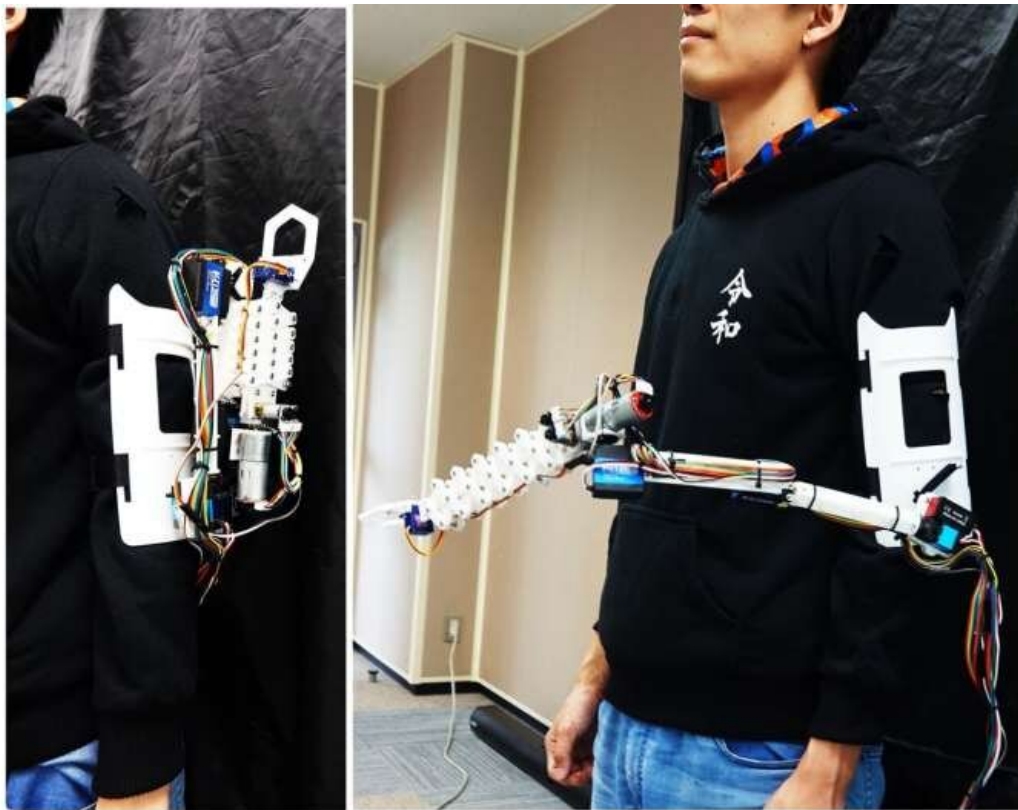


# Best of Last Week – Possible detection of dark energy, an augmented limb, a hydrogel for cartilage repair

September 20 2021, by Bob Yirka

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Credit: Ding et al

It was a good week for astrophysics as a team of researchers at the University of Cambridge suggested that some unexplained results from

the XENON1T experiment may have been an instance of [detection of dark energy](#). Also, a team led by a group at the University of Leeds identified [large reservoirs of precursor molecules necessary for life in protoplanetary disks circling newly formed stars](#). And an international team announced that they are predicting that [the supernova Requiem, which was observed exploding back in 2016, will make another appearance in 2037](#).

In technology news, a combined team from the University of Tokyo and the Japan Advanced Institute of Science and Technology demonstrated [a compact robotic limb that could support humans as they complete a variety of everyday tasks](#)—called AugLimb, the device can augment natural abilities rather than replacing those that have been lost. Also, a team at the Technical University of Munich developed [a machine-learning technique that could be used to learn local equilibria in symmetric auction games](#). And a group at the University of California, Santa Barbara found [a way to count the number of people in a crowd using only Wi-Fi signals](#). Also, a team at the University of Waterloo found [a way to use a multi-task learning network to identify the numbers on jerseys of sports team players](#). In other news, a team at Curtin University conducted groundbreaking research that identified [the likely cause of Alzheimer's disease](#)—leakage of blood into the brain of fat-carrying particles transporting toxic proteins. Also, a team with members from Friedrich-Alexander University Erlangen-Nürnberg, the University of Bristol and the University of Bath found evidence showing that [all modern snakes evolved from a few survivors of the dinosaur-killing asteroid](#).

And finally, if you suffer from cartilage erosion or damage, you may want to check out the work done by a team of researchers in China. They have developed [a new injectable hydrogel for cartilage repair](#) that can be used without the need for surgery.

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