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## **Funk Engineering is Looking to Change the Exercise Industry With New Patent**

**Northeast Ohio engineering firm is delivering constant force in a small, lightweight device**

### **CLEVELAND, OHIO — July 12, 2017**

Funk Engineering, a full-service engineering consulting firm, is pleased to announce that it has been awarded a patent for their "Portable Exercise Device Providing Constant Force Output." The device employs a gas spring to generate the force, which can be commonly found in a vehicle's tailgate lift, was created to power a small, lightweight exercise machine.

"It is a novel way of creating a constant force output from a very lightweight device, says Justin Funk, president of Funk Engineering. "You can theoretically replace a stack of weights with this device and change the load with just a simple pin switch. You've got the versatility of being able to perform anything that you can perform on a device with a cable."

Like the aforementioned tailgate, the patented Funk device utilizes gas springs because they are durable, long-lasting, and have a good force ratio. The gas springs are hooked to a cam profile, converting the linear force to rotational force, and turning that varying force from the cylinder into a near constant force. From there, you can adjust the actual force being created by adjusting the lever arm on the device.

With the patent process behind them, Funk Engineering is now looking to create a prototype and bring the device to market. An initial thought is to use the device to replace the system of hooks and arms seen on many of today's exercise devices. The patented Funk device — which is smaller, lighter, and more durable— can replace that system of hooks and arms and alter resistance with a simple pin swap. It would not only make the exercise machine easier to use, it would also decrease the size and weight of the overall machine.

The Funk patent could also be used to create a stand-alone device, something that's small enough to slide under a bed and pull out whenever a user wants to do small exercises.

Regardless of how it ends up being used, this patent is a huge win for Funk Engineering. From initial conception, to the long and arduous patent process to actually receiving the patent, the Portable Exercise Device Providing Constant Force Output is a nice feather in the Funk Engineering cap.

"In a way, getting this patent is helping to put us on the map," says Funk. "We're getting recognition for creating something innovative, and for the hard work and development that went into creating the device itself. It shows our innovation at work. It's something we can hang our hat on."

### **About Funk Engineering**

Funk Engineering is a full-service engineering consulting firm headquartered in Cleveland, Ohio. Funk Engineering specializes in the cradle-to-grave development and design of products and the corresponding testing required by those projects. You can visit Funk Engineering's website at [funkengineering.com](http://funkengineering.com)

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