It’s becoming a little easier to build sophisticated robotics projects at home.

Earlier this week, AI dev platform Hugging Face released an open AI model for robotics called SmolVLA. Trained on “compatibly licensed,” community-shared datasets, SmolVLA outperforms much larger models for robotics in both virtual and real-world environments, Hugging Face claims.

“SmolVLA aims to democratize access to vision-language-action [VLA] models and accelerate research toward generalist robotic agents,” writes Hugging Face in a blog post. “SmolVLA is not only a lightweight yet capable model, but also a method for training and evaluating generalist robotics [technologies].”

SmolVLA is a part of Hugging Face’s rapidly expanding effort to establish an ecosystem of low-cost robotics hardware and software. Last year, the company launched LeRobot, a collection of robotics-focused models, datasets, and tools. More recently, Hugging Face acquired Pollen Robotics, a robotics startup based in France, and unveiled several inexpensive robotics systems, including humanoids, for purchase.

SmolVLA, which is 450 million parameters in size, was trained on data from LeRobot Community Datasets, specially marked robotics datasets shared on Hugging Face’s AI development platform. Parameters, sometimes referred to as “weights,” are the internal components of a model that guide its behavior.

Hugging Face claims that SmolVLA is small enough to run on a single consumer GPU — or even a MacBook — and can be tested and deployed on “affordable” hardware, including the company’s own robotics systems.

In an interesting twist, SmolVLA also supports an “asynchronous inference stack,” which Hugging Face says allows the model to separate the processing of a robot’s actions from the processing of what it sees and hears. As the company explains in its blog post, “[b]ecause of this separation, robots can respond more quickly in fast-changing environments.”