Development of a multi-purpose, modular, low cost robotic arm for education and unmanned platforms

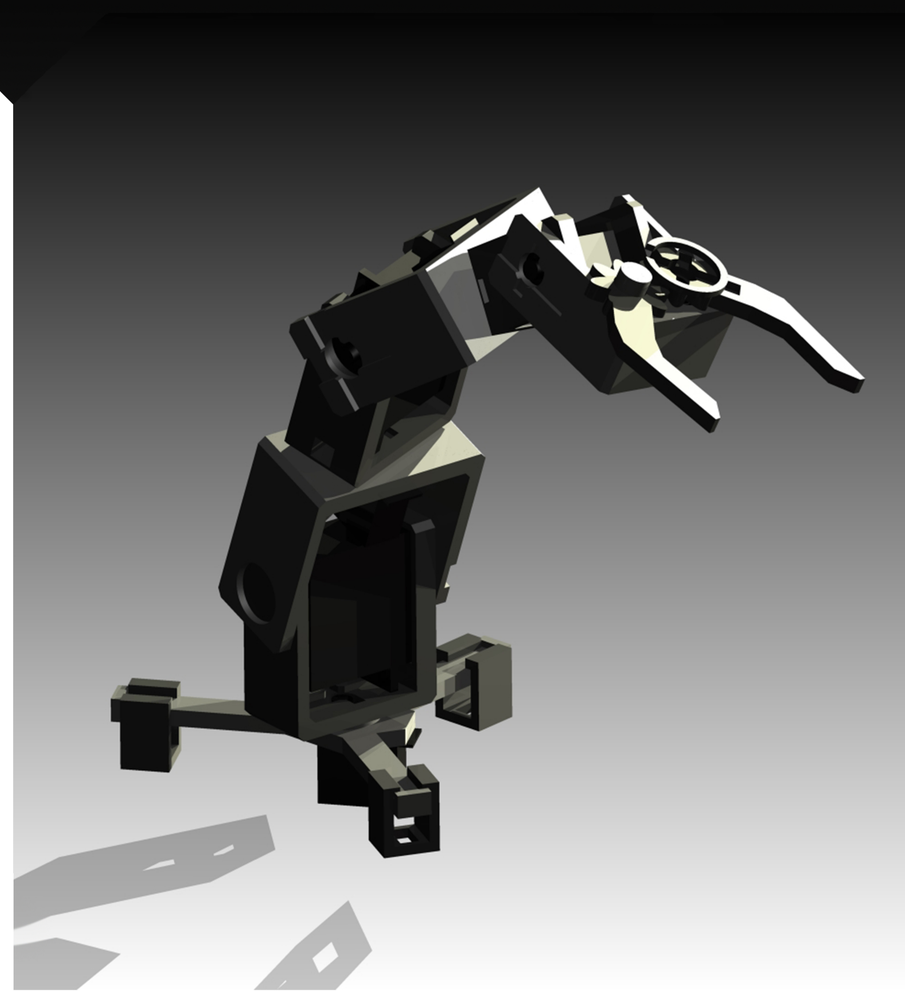
Key features:

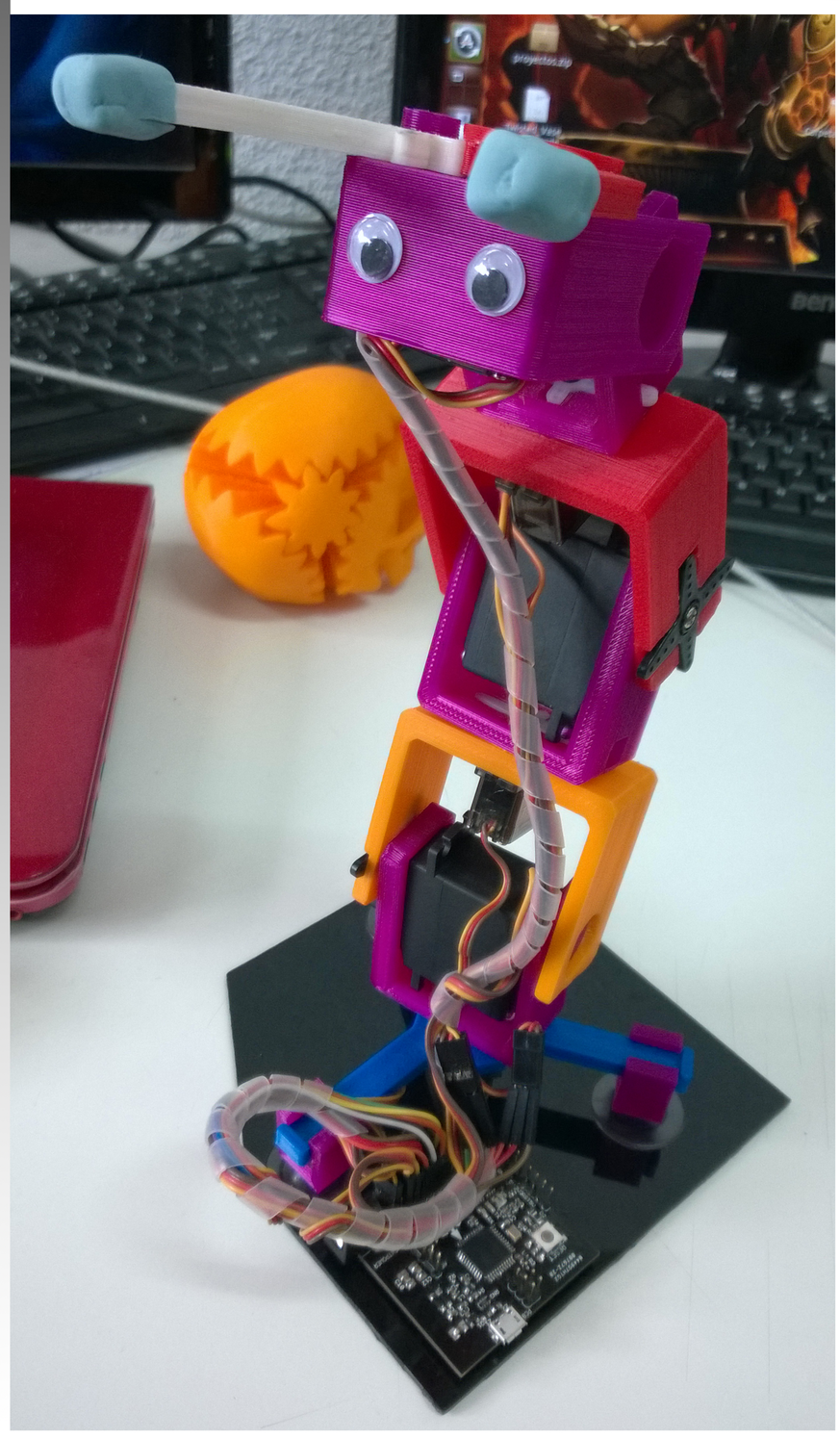
- Cheap
- Easy to build
- Easy to program
- Easy to use

Why?

When building robots and unmanned systems, it is usual to design all-in-one solutions meant to accomplish a certain range of missions. Depending on the situation, these solutions have to be adapted and reequipped with different payloads and actuators and the latter are usually very specialized and expensive.

Recognizing the need of a multi-purpose actuator which can be used in a wide variety of situations, we have designed a modular robot which can be easily built, attached and re-imagined for different situations at a cost that makes prototyping and testing fast and cheap.





How?

By using 3D printing and cheap electronics, this robotic arm can be built in less than ten minutes, using only two screws per joint and adding up to six degrees of freedom with the most basic setup, while keeping the hardware cost as low as 50~60$ depending on the configuration.

Its modular nature means it can be adapted to many situations with the minimal effort, as the swappable parts are also the 3D printed ones.

Can I control it?

From voice to gesture control, the platform is ready to easily implement the most natural and suitable way of using it you can imagine.

Our dual layer system makes it really simple to develop applications capable of handling it. Just open an UART and follow our lead!

Want to start faster? Voice and gesture control are ready for you to try.

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