

**View of a Faire  
Maker Faire 2013**

**Dave Jaffe**



Adam Savage on stage

[Sashimi Tabernacle Choir video](#)



Attaching artificial lobsters and fish all over a car is just plain crazy. Having them all lip sync and dance to music means Maker Faire crazy.



In the quest for heavier payloads quadcopters are becoming multi-copters with six or eight rotors.



If all you need is indoor flight with a video feed to your glasses then a small quadcopter is fine. (HexAirbot)



Wouldn't it be nice to gyro-stabilize a Go-Pro camera on your quadcopter?  
(HexAirbot)



These CNC milled gazebos come in many sizes with built-in seating around the inside perimeter.

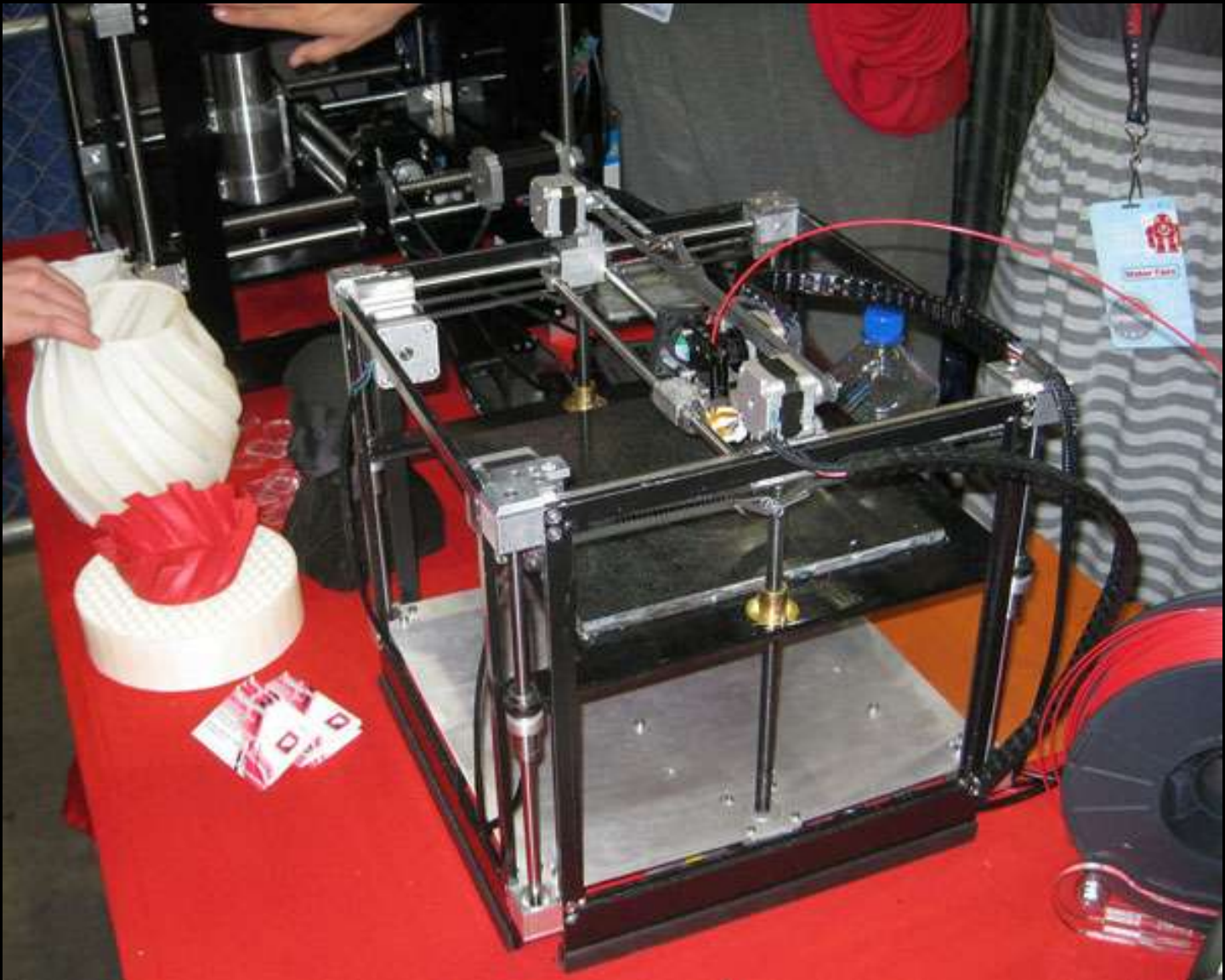


Looking up inside the gazebo.





One person gets to do the pedaling and they both get the centrifugal force.



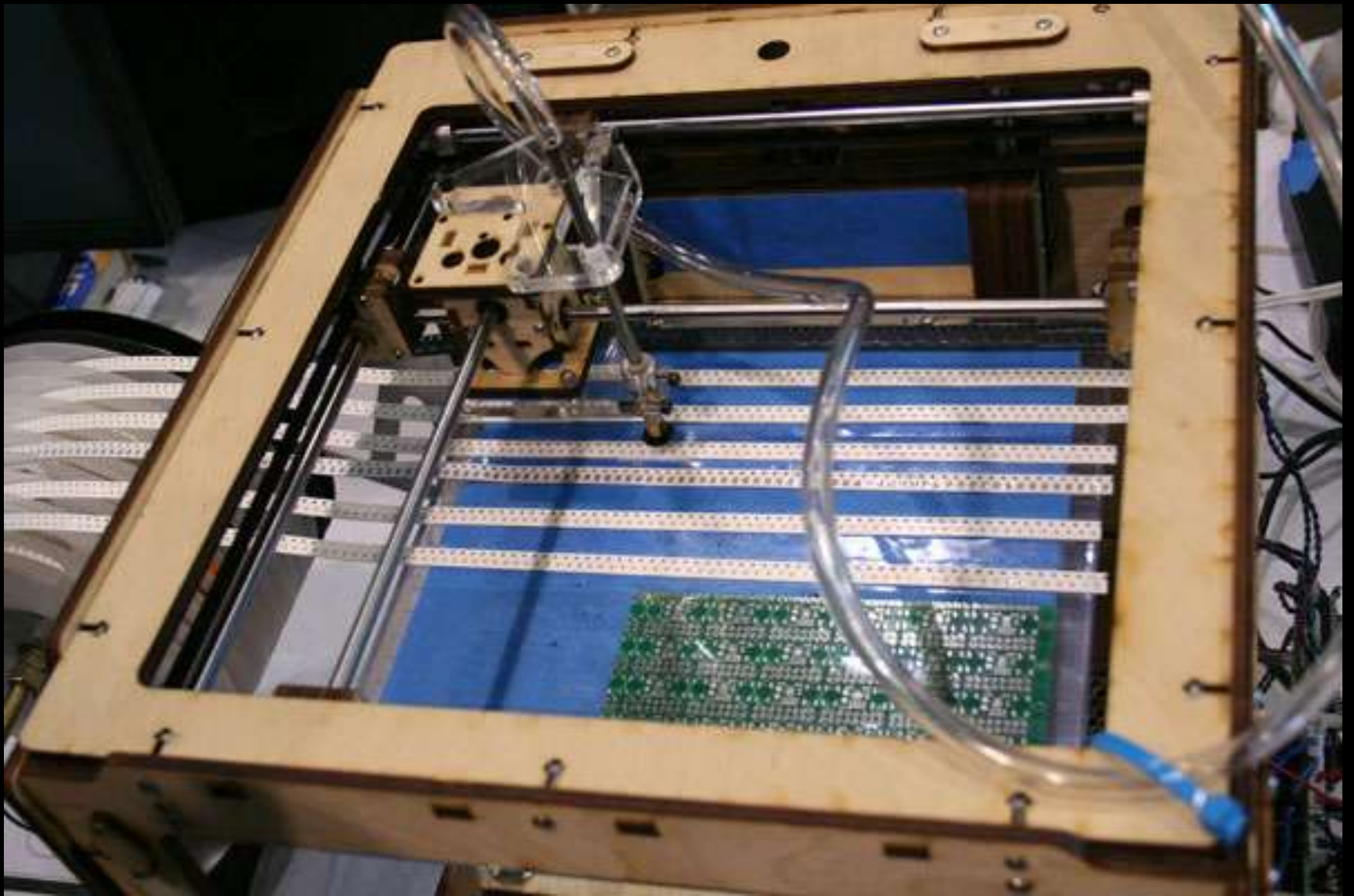
3-D printers are reaching epidemic proportions at Maker Faire. Here's a conventional orthogonal axis design.



Here's a 3-D printer with non-orthogonal axes. This design always loads the actuators in the same direction, eliminating backlash.



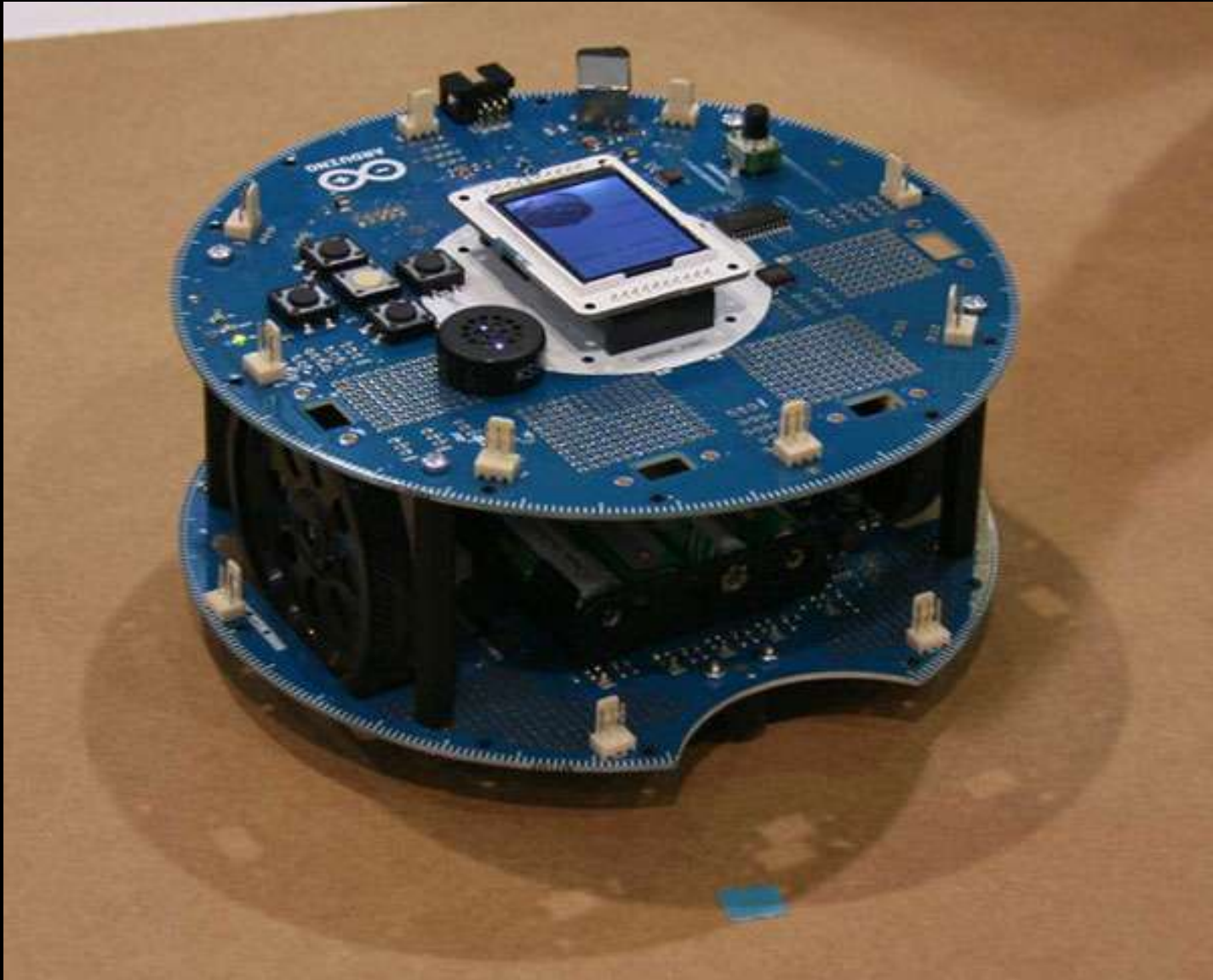
UC Berkeley, <https://www.berkeley.edu/> work they are doing with 3-D printing to reduce the price of the medium from \$10-\$50 / pound down to \$1/pound using concrete or even less using salt.



A project using the XYZ positioning capability of a 3-D printer to pick-and-place SMD designs (Tempo Automation).



What looks like an SD card is actually a Wi-Fi-connected microcontroller (electric imp).

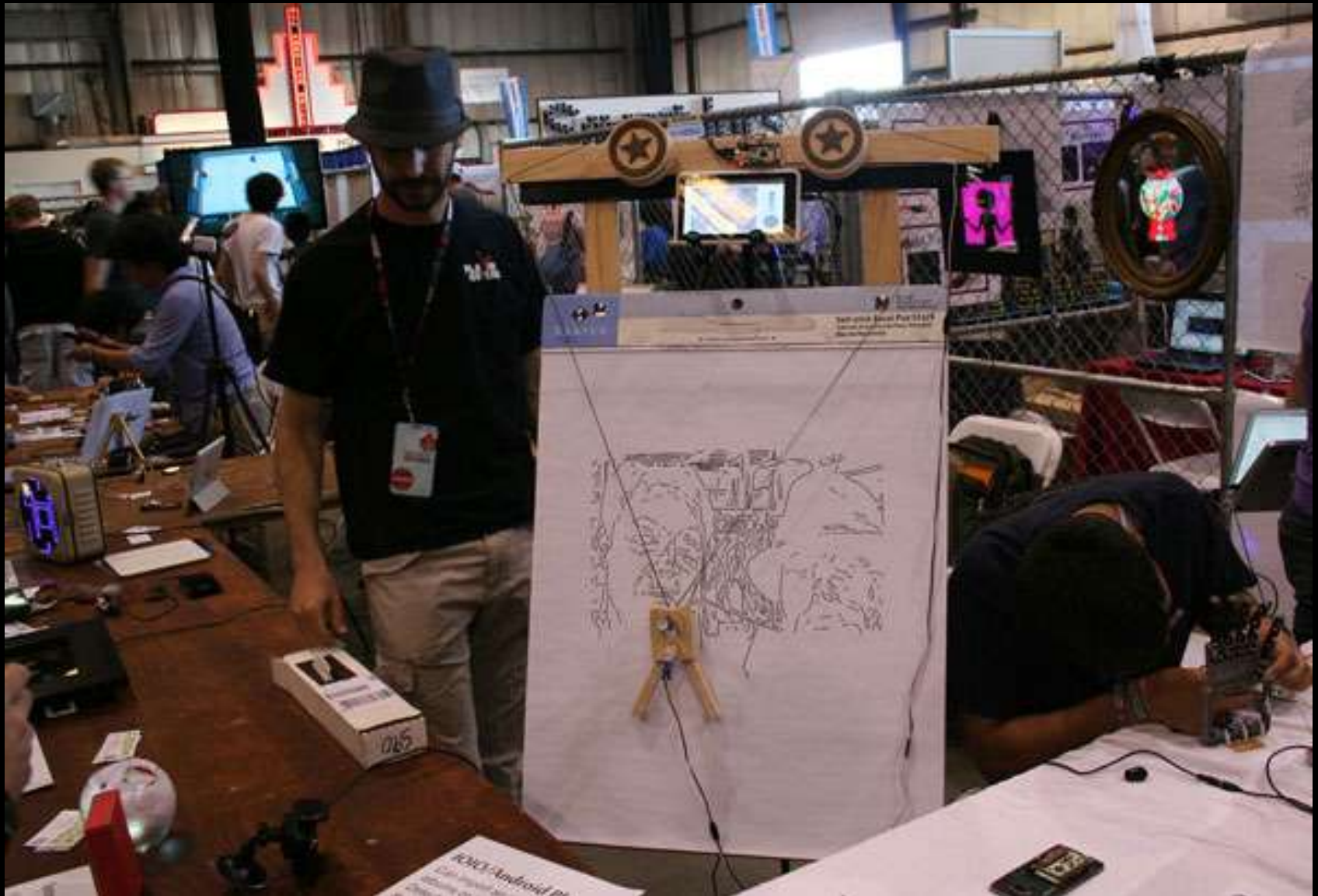


This is a recently introduced robot from Arduino.



Roy the robot





A simple 2-D plotter - two servos plus a wall and you can plot as big as you want. Check IOIO and PlotterBot to see two different implementations.



A Steampunk submarine? Not sure it's seaworthy but it does roll around the nicely.



A submarine that started life as a 500-gallon propane tank has been depth-tested to 100 meters (unmanned).



The sub has buoyancy tanks (black near the bottom), a hydraulic motor thruster, and pitch planes. It's done about 25 dives to date.



For lighter travel over water - a folding plastic kayak. (Oru Kayak)



It's 26 pounds and tested for 20,000 folding cycles.



How effective can a "do not touch" sign be on something like this? The big red button in the middle has got to give a big propane blast on the sculpture.



I'm guessing his "No you can't touch" sign gets more respect. Check out how his hair is standing straight out. ESD testing anyone?





Not your average talking skeleton. A moving head and jaw synchronized to his speech gives this skeleton a realistic feeling.



This persistence of vision is achieved by moving a 3-foot wand back and forth. The last 8 inches had a line of LEDs. The visual experience is better than the photo.



This wirelessly-controlled RGB LED light lets you continuously change the color. It is similar to Philips Hue light, but about half the price. (Yeelight)



If it's big then it was probably made for Burning Man. The walking pod fits the description although it is missing the flames.



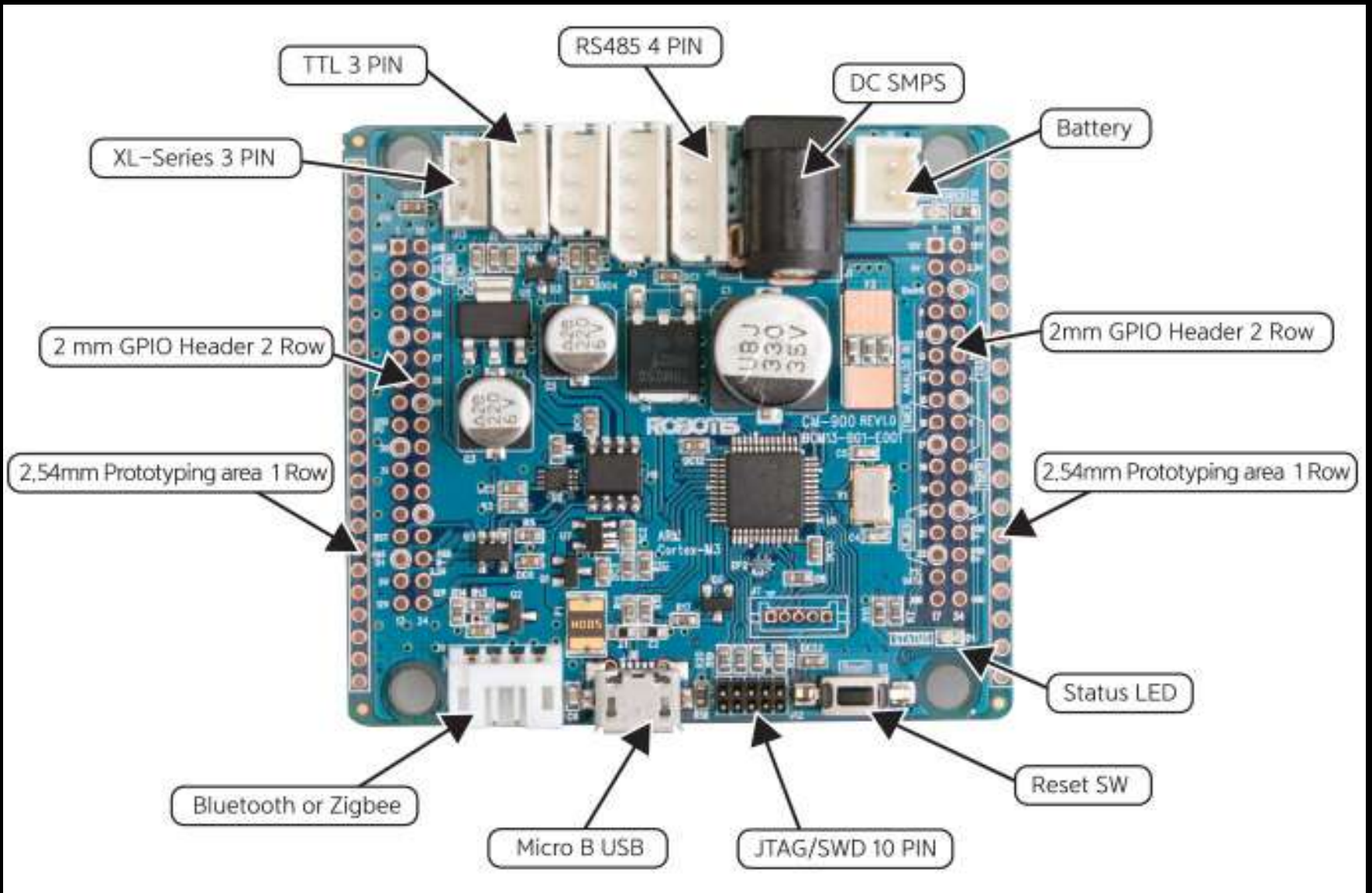
It's actually walking here, you can see the driver at the controls. Although slow, it has surprisingly smooth and level motion.



The fire-breathing dragon is a slightly more practical form of transportation.  
Dorsal fins discourage passengers, just like on real dragons.

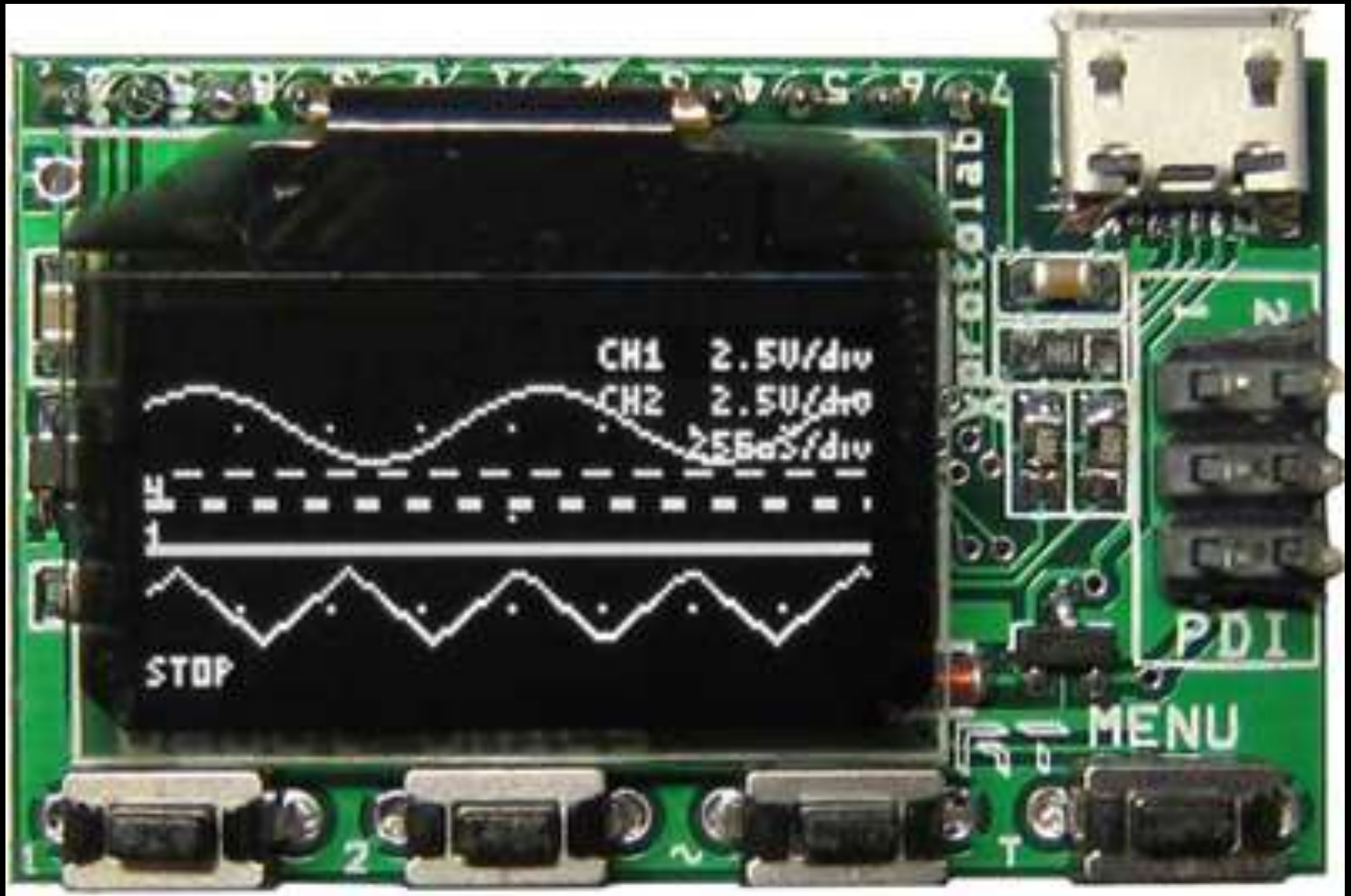


Hollywood can make nice flaming explosions with plenty of sound. So can  
Maker Faire.



**Robotis CM-900 - \$19.90**

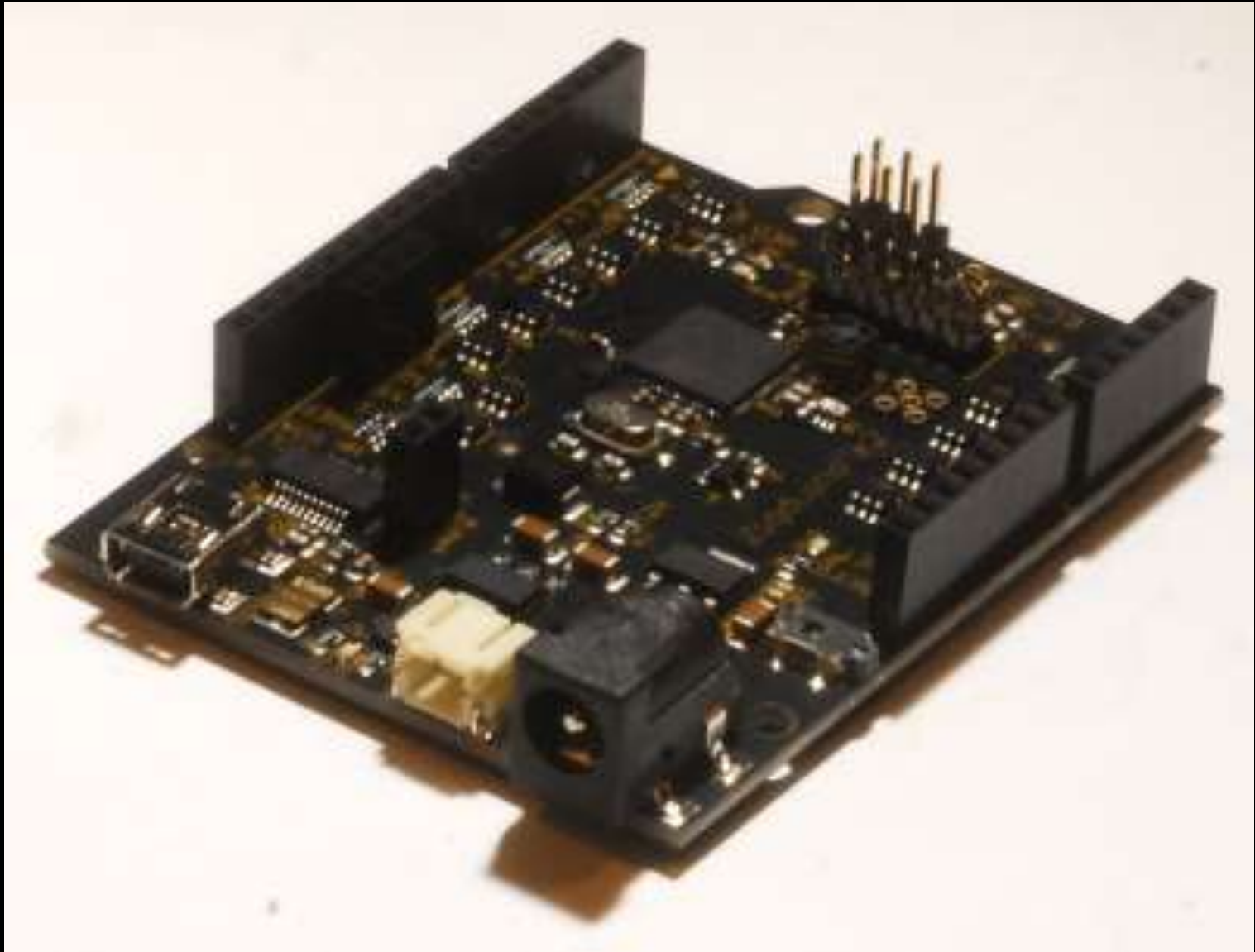




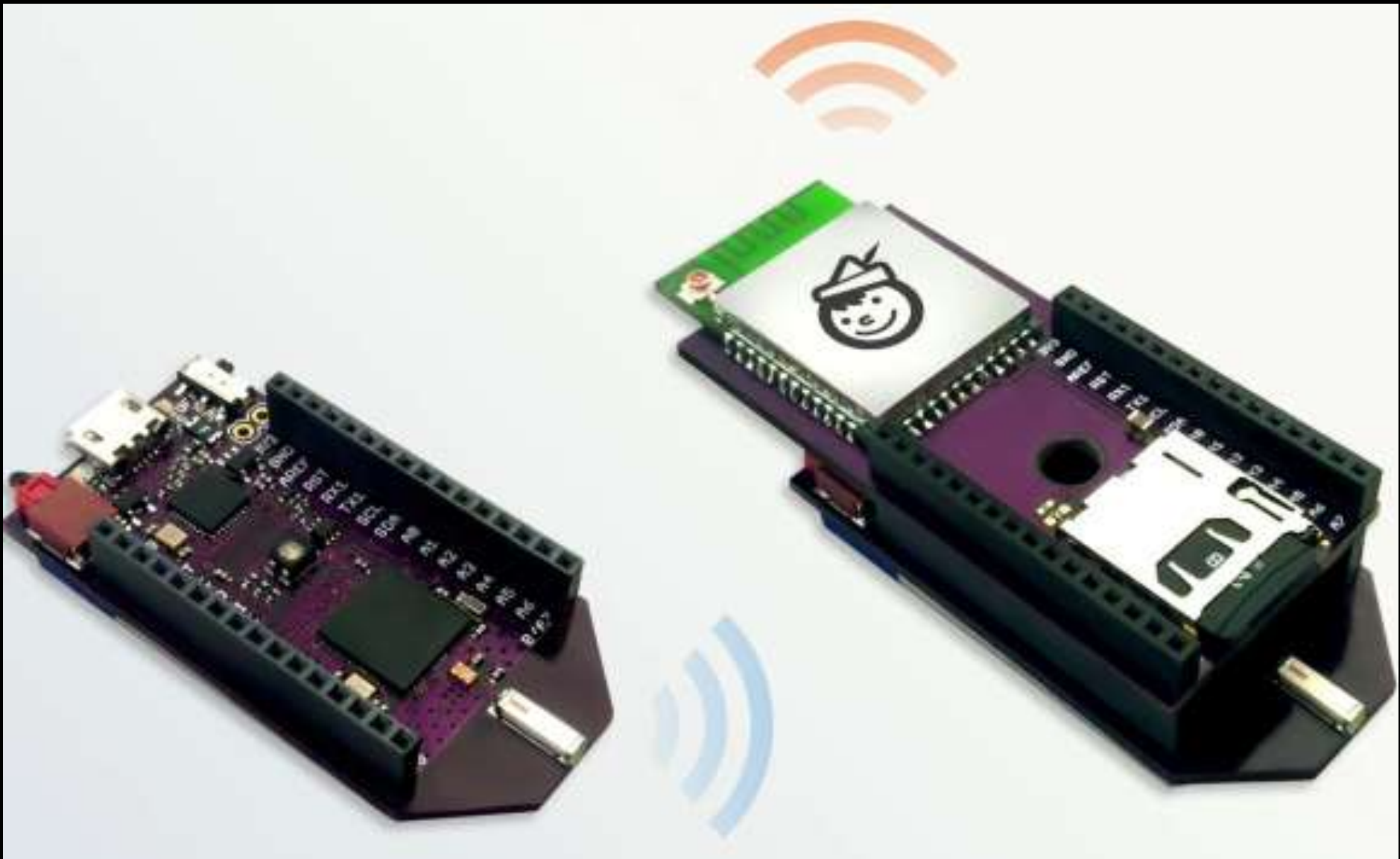
Xprotolab – 1 x 1.6" miniature oscilloscope and waveform generator



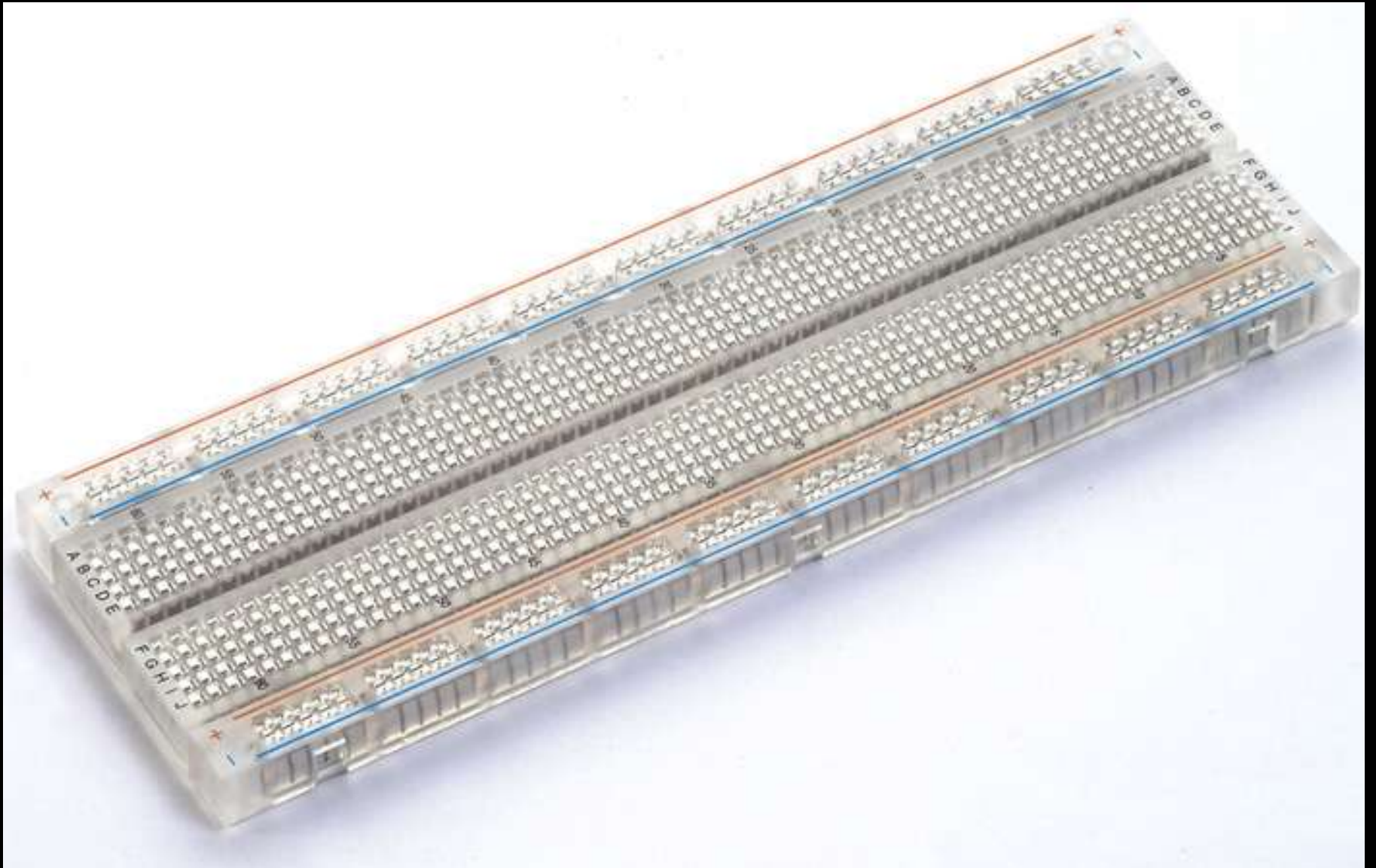
Konashi, a programmable physical computing toolkit that allows developers to wirelessly expand the I/O of a smartphone or tablet.



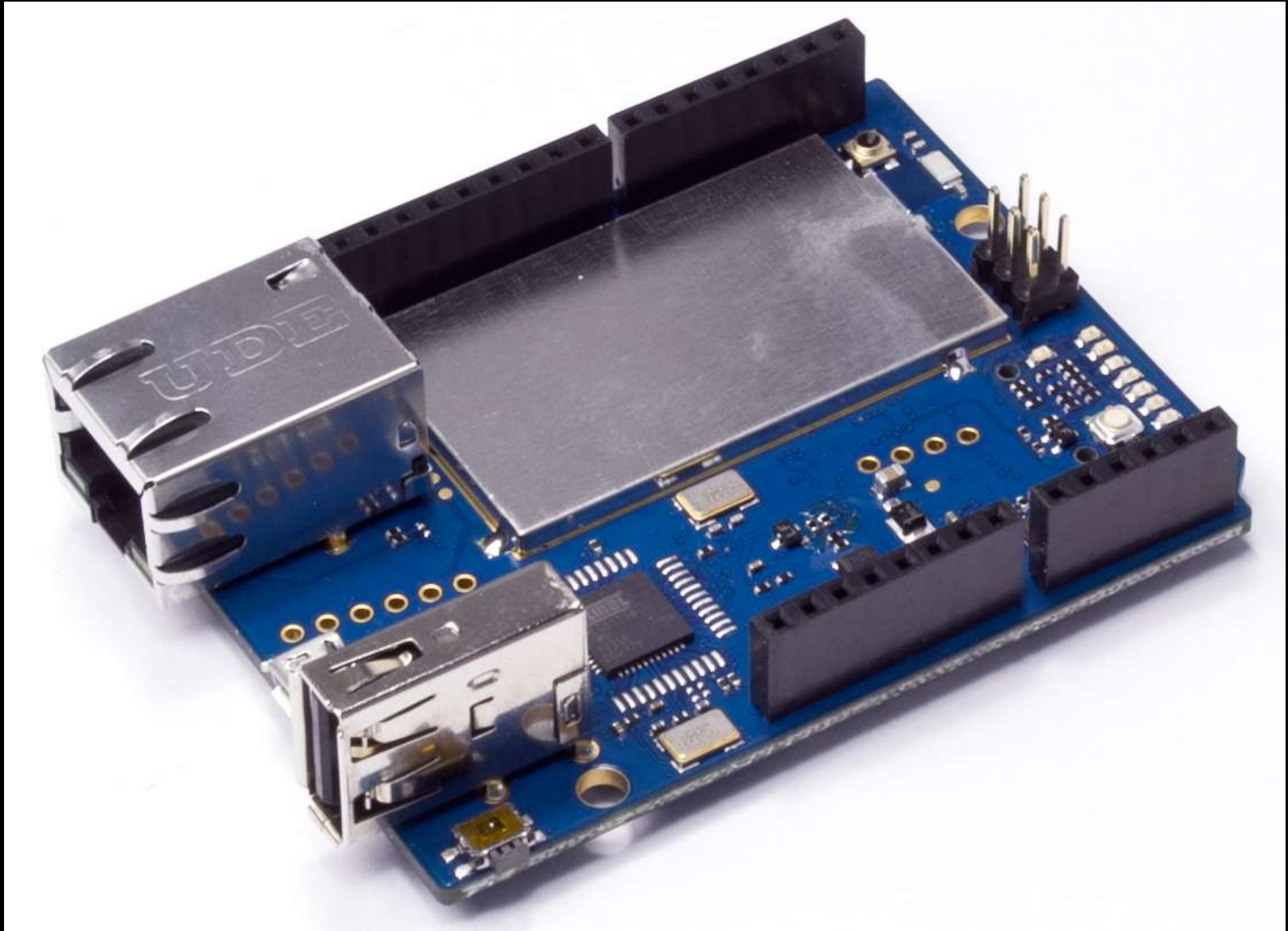
Zigduino – microcontroller with onboard WiFi - \$70



Pinoccio WiFi microcontroller



BusBoard Prototype Systems



Arduino Yun – with Wifi and Linux



Arduino Robot - \$275

End