SparkFun Electronics Inc

- 9 years old
- 135 employees (41 dogs)
- Self-funded
- 50/50 global/domestic split
- Making it up as we go
L6470 Stepper Driver Breakout

**Description:** STMicro's L6470 (a.k.a. "dSPIV") bipolar stepper motor driver. It has built-in protection, overcurrent detection, undervoltage detection, overtemperature stall detection, a 5-bit ADC, and a switch input for either user-jog control or as a hard stop if you run out of length. It also features microstepping microsteps per full step) and PWM drive voltage.

Unlike most stepper motor drivers, the dSPIV is an SPI link. It has an on-board 16MHz oscillator and autonomously execute movement commands by more counting steps in your code. It also supplies acceleration and deceleration profiles to prevent overshoots. On-board registers track current speed.

This L6470 Stepper Driver Breakout makes it easy to put the dSPIV to work in your project. Simply connect your motors and your SPI-capable microcontroller and get spinning!
You can build it!
Three Outcomes
Three Outcomes

Sell a few
Keep your day job
Make enough to pay for more tools
Three Outcomes

- Sell Pebble
- Quit your day job
- Go to China
Three Outcomes

Pit of Despair
Can’t quit. Must ship.

“This is what you'll get. It took us about 6 minutes to test/cal, screw, and kit this. We just have.... 150 to go...” (900 minutes = 15 hours)
Collaborate!

10,000

10
Collaborations Work
Some Collaborations Don’t Work

- It’s hard
- It doesn’t always work out
The Nut to Crack

- Funding
- Marketplace
- Community Help
- Designed for unorthodox manufacturing
- Crowd sourced assembly