

# **Finding the Limits of Open Hardware**

Examples and End Cases

# Openness



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## Enlighten Pistol/Gun Assemble Construction Toy with Shooting Function

★★★★★ (11 reviews)

SKU: 43900 (Added on 9/9/2010)

Price: **US\$ 9.40**Shipping: Free Shipping To **UNITED STATES**

Delivery: Typically ships in 7 to 10 days

Quantity: - 1 +

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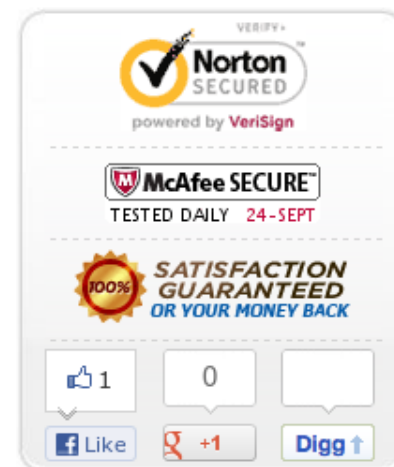
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Overview

Specifications

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CUSTOMER SURVEY

- Great gift for children

## Ten tons of confiscated counterfeit Legos to be burned at energy plant

World's largest single seized batch of counterfeit products destroyed

About ten tons of counterfeit *Lego* blocks were destroyed at the Kymeenlaakso waste processing plant in Anjalankoski on Thursday. The plastic will be mixed with other waste and burned at a district heating plant in Lahti.

A container full of the Chinese-made copies of the famous Danish interlocking building blocks was seized by Finnish Customs as it was en route from the Port of Hamina to Russia.

Customs officials estimated the average value of the load at about EUR 1.36 million, and said that their market value would be many times that amount.



**Johannes Qvist, regional manager** of Lego in Finland said that in addition to commercial considerations, the destruction was also a safety issue, as the pirated Legos do not comply with toy safety standards.

"The quality does not meet Lego standards. The plastic is softer, and the small parts, such as the hands of the human figures, come off easily.

Lego spends millions of Danish krona in efforts to track down counterfeit versions of its products, and is also paying for the costs of the destruction.

**The use of the destroyed blocks** for heating energy was possible after analysis of the plastic determined that the mixture did not contain toxic PVC or cadmium.

Each month, the Anjalankoski plant processes up to ten consignments of confiscated counterfeit products that can be used for energy.

**Customs authorities have stopped** 110 deliveries containing 1.1 million packages of various counterfeit products.

The illegal products are usually manufactured in the Far East, and they include an increasing range of goods, which are copies of well-known brand names.

The most common counterfeit products are cigarettes that come via Russia, 80% of which are manufactured in China. Next comes alcoholic beverages, and after that, brand name clothing and shoes.

Last year Finnish Customs estimated the value of the seized counterfeit goods at EUR 30 million. So far this year EUR 25 million of pirated goods have been confiscated.



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# OCTOBER 2011 GRIPnews

A PANAVISE NEWSLETTER

## AND THE WINNER IS...

The physical trophies were a 3D printing production by MakerBot Industries.



The 2011 MAKE Magazine Industry Maker Awards, AKA "The Makey's" was held this year during the Maker Faire in New York, the world's largest DIY event. If you didn't tune in to the award ceremony on September 16th, you missed out on some truly innovative companies and individuals.

The live broadcast introduced the nominees for all four categories and a public poll determined the winner of each. PanaVise is excited to say that we brought home the Makey award for "Most Repair Friendly." As many of you may have read in an earlier *Grip Newsletter* or on *Twitter*, we were nominated, by the result of 'company and end-user' communication. Our new Model 239: PV Jr. Speed Control Handle, inspired by user Lee Cavanaugh's



**Our very own Tom Simpkins, excepting the PanaVise Makey Award, on MAKE Live.**

innovative handle mod, was the driving force behind the nomination. After our President, Gary Richter, contacted Lee, the process of bringing this creative idea into fruition was only months from becoming reality. We appreciate MAKE magazine and our loyal customers for recognizing our strong effort in keeping PanaVise's users happy and in the loop. Our ears are open and we want to make our product easier and more efficient than ever.

## PRODUCT FEATURES

### VICES ACCESSORIES

These versatile neoprene pads, Model 346 & 346NM, slip over the metal jaws on the 366 and 376 Vise Heads.



### MOUNTS MOBILE SOLUTIONS

The 809-G: attach this mount to car, truck, van & SUV windows. Adapts to any Garmin GPS device with mounting socket.



### CCTV

The 848-06 Pass Thru Micro Mount comes in black or white & in a 6" length. This smaller CCTV camera



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## What's New?



### BASIC Stamp Frequently Asked Questions

A list of the most asked questions about BASIC Stamps is now available! [BASIC Stamp FAQs](#) is an on-going effort to help you find answers to common questions. It contains 71 questions and answers.

### Technical BASIC Stamp Conversion Document

Are you a BASIC Stamp I user who is having trouble developing with the BASIC Stamp II? Are you a new BS2-IC user who would like to experiment with the application notes written for the BASIC Stamp I? If so, the [BASIC Stamp I to BASIC Stamp II Conversion document](#) contains many details concerning the differences between the PBASIC1 and PBASIC2 languages. Now you can download this document in .pdf format for free.

### What's Not So New?

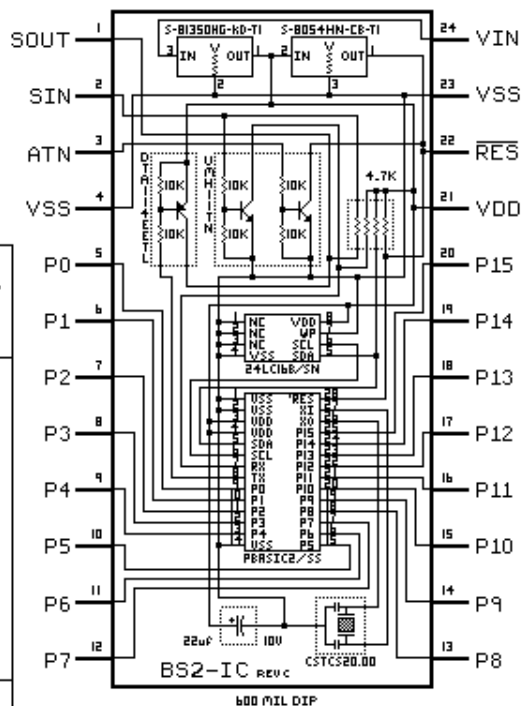
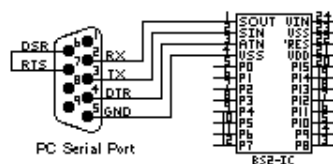
### BASIC Stamp Schematics On-line

We now have BASIC Stamp I (BS1-IC) and BASIC Stamp II (BS2-IC) [schematics](#) available on-line in .gif format. Soon we'll include additional schematics as well.

**BS2-IC** rev. c Complete BASIC Stamp II circuit in SMT**Features**

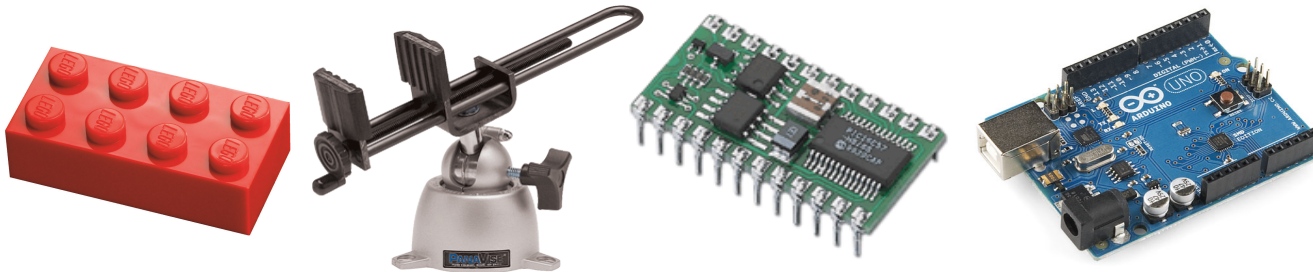
- \* PBASIC2 Interpreter
- \* 2048-byte EEPROM
- \* 20MHz Resonator
- \* 5V Regulator
- \* 4V Brown-Out Reset
- \* PC Serial Interface
- \* 16User I/O Pins
- \* 8ma Run / 100uA Sleep (no loads, I/O's @ VSS/VDD)

PIN	NAME	FUNCTION	DESCRIPTION
1	SOUT	Serial Out	Temporarily connects to PC's Rx.
2	SIN	Serial In	Temporarily connects to PC's Tx.
3	ATN	Attention	Temporarily connects to PC's DTR.
4	VSS	Ground	Temporarily connects to PC's GND.
5	P0	USER I / O 0	<p>User port pins that can be used as inputs or outputs.</p> <p>In output mode: Pins will source from VDD or sink to VSS. Pins should not be allowed to source more than 20ma or sink more than 25ma each. As groups, P0-P7 and P8-P15 should not be allowed to source more than 40ma or sink more than 50ma each.</p> <p>In input mode: Pins are floating (less than 1ua leakage). The 0/1 logic threshold is approximately 1.4V.</p> <p>NOTE: To realize low power during sleep, make sure that no pins are floating, causing erratic power drain. Either drive them to VSS or VDD, or program them as outputs that don't have to source current.</p>
6	P1	USER I / O 1	
7	P2	USER I / O 2	
8	P3	USER I / O 3	
9	P4	USER I / O 4	
10	P5	USER I / O 5	
11	P6	USER I / O 6	
12	P7	USER I / O 7	
13	P8	USER I / O 8	
14	P9	USER I / O 9	
15	P10	USER I / O 10	
16	P11	USER I / O 11	
17	P12	USER I / O 12	
18	P13	USER I / O 13	
19	P14	USER I / O 14	
20	P15	USER I / O 15	
21	VDD	REGULATOR OUT	Output from 5V regulator (MN powered). Should not be allowed to source more than 50ma, including P0 - P15 loads.
		POWER IN	Power input (MN not powered). Accepts 4.5V-5.5V. Current consumption is dependent upon run/sleep mode and I/O's.
22	RES	RESET I/O	When low, all I/O's are inputs and program execution is suspended. When high, program executes from start. Goes low when VDD is less than 4V or ATN is greater than 1.4V. Pulled to VDD by a 4.7K resistor. May be monitored as a brown-out/reset indicator. Can be pulled low externally (i.e. button to VSS) to force a reset. Do not drive high.
23	VSS	GROUND	Ground. Located next to VIN for easy battery hookup.
24	VIN	REGULATOR IN	Input to 5V regulator. Accepts 5.5 to 15V. If power is applied directly to VDD, pin may be left unconnected.

**PC - to - BS2-IC connection**

Connect DSR and RTS for automatic port detection.

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## Frequently Asked Questions

What is an Arduino?

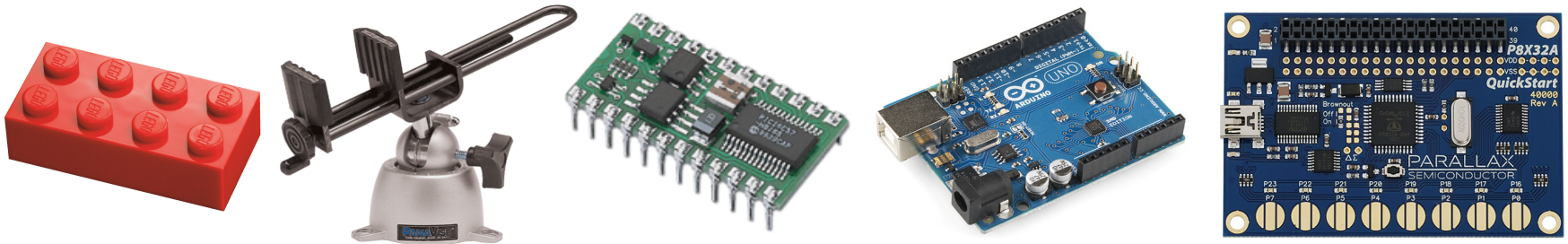
Glad you asked, we have a great introduction page on Arduino, [click here to read it.](#)

What do you mean by  
open-source hardware?

Open-source hardware shares much of the principles and approach of free and open-source software. In particular, we believe that people should be able to study our hardware to understand how it works, make changes to it, and share those changes. To facilitate this, we release all of the original design files (Eagle CAD) for the Arduino hardware. These files are licensed under a Creative Commons Attribution Share-Alike license, which allows for both personal and commercial derivative works, as long as they credit Arduino and release their designs under the same license.

The Arduino software is also open-source. The source code for the Java environment is released under the GPL and the C/C++ microcontroller libraries are under the LGPL.

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# What if?

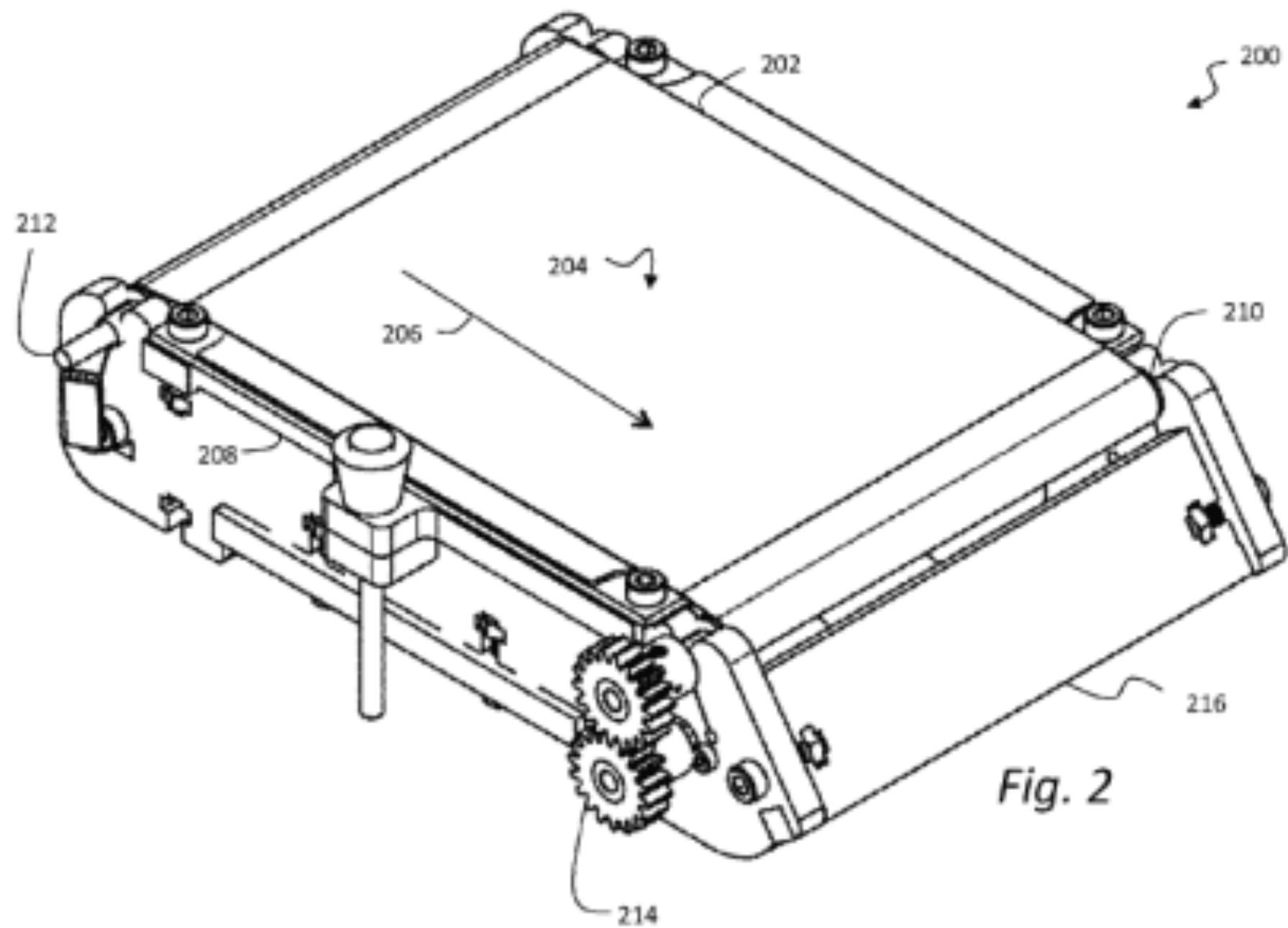
- A designer has lost the design files?

# What if?

- A designer has lost the design files?
- A design never had files?

# What if?

- A designer has lost the design files?
- A design never had files?
- A design is patented?





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- Design patent
  - Covers ornamental design

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- License design, including files, under an open license
- Perpetually release patent rights
- Don't restrict reverse engineering

