

THE SUBMINIATURE TIMES

The Subminiature Times is published monthly by Doylejet, P.O. Box 60311, Houston, TX. 77205 (713) 443-3409

Supporting 110, 17.5mm, 16mm, 9.5mm, 8mm, 4mm, 1mm, Microdot, and Electronic Still Photography.

Camera Combines Near And Far Sight

URBANA, IL—An electronic camera with an endless depth of field is under development at the University of Illinois. The device can snap an image in which distant mountains are as sharp as the flowers at the photographer's feet.

In a standard electronic camera, the image plane of the sensing device stands perpendicular to the lens's line of sight. But in the Omni-Focus camera, the



Camera pans across the scene, focusing objects both near and far when light strikes tilted image plane at a variety of resolving distances.

THE UNIVERSITY OF ILLINOIS



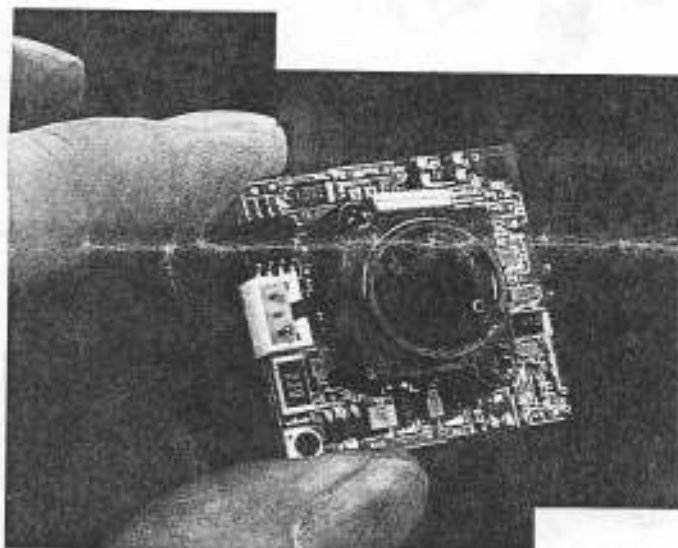
IMAGE ARRAY



FINAL IMAGE

image plane is at an angle. Thus, some elements of the plane lie closer to the photographed scene—and resolve objects at different distances—than other elements. What's more, the camera pans on a small motor, capturing an array of images, so that the entire scene is shot over a range of resolving distances.

The camera's computer analyzes the image array and selects the sharpest image of each object, combining them into one photo.



Polaris Industries' micro-size CCD camera modules are available in color and black and white. The cameras accept industry-standard C-mount optics. All models feature an infrared-sensitive CCD, providing the capability to monitor in total darkness. The MB 750 Series features a resolution of 420 lines, and light sensitivity of 0.1 lux. Output is standard NTSC. The cameras operate on 8-14 Vdc and draw between 100 and 110 mA. Several models are available; the smallest—the MB 750-P—measures only 1.25" square. Contact Polaris Industries, 141 West Wieuca Rd., Ste. 300-B, Atlanta, GA 30342. (404) 252-3340.

Submitted by M.L. Blazer

SAVE 2.99

\$12 Sale Req. \$14.99

110 EF Tele Pocket Camera
Vivitar, with built-in flash and wrist strap.

TWO NEW entry level 110 cameras from Vivitar. The 110 EF Tele is on sale at local Walgreen's. The Micro-110 is a mail order item in the latest Harriet Carter catalog. Dept 32, North Wales, PA. 19455.



THE WORLD'S SMALLEST CAMERA TAKES FULL-SIZE HIGH-QUALITY PHOTOS... AND FITS IN THE PALM OF YOUR HAND! Ultra-compact Vivitar camera makes taking pictures a piece of cake. It loads in a snap, winds easily, and requires no focusing or batteries. Uses standard 110 cartridge film (not included). Includes handy neck strap. Measures only 2 1/4" x 1 1/4" x 1".
C1777 World's Smallest Camera \$4.98

CAMERA WEIGHT, DIMENSIONS*, LIST PRICE	AUTOFOCUS FEATURES	SHUTTER TYPE, SHUTTER SPEEDS, ISO RANGE, POWER SOURCE, FILM-ADVANCE MODES	LENS
RICOH MIRAI 2 lb, 3 oz 3 1/4 x 5 1/4 x 5 1/4" \$720 	• Passive, TTL phase-detection system with focus-assist beam operable to 16 feet for low-light (EV 5 and lower) situations. Focus confirmation in viewfinder, manual power focus possible. • Mode: Focus priority. • Focusing range: 1'8" (1:4.9) to infinity.	• Electronically controlled, vertical-travel, focal-plane shutter; speeds from 32 to 1/2000 sec, plus Bulb. Maximum flash synch speed, 1/100 sec. • ISO 25-5000 with noncoded cartridges rated at ISO 100. • One 6-volt lithium cell (CR-P2) or four AAA cells. • Single frame or continuous (to 2 fps) advance.	• 35-135mm f/4.2-5.6 power varifocal. Accepts 52mm filters.
YASHICA SAMURAI 4.0 1 lb, 8 oz 5 x 2 1/4 x 5 1/4" \$630 	• Passive, TTL phase-detection system operable between EV 3 and EV 18 (ISO 100) with focus confirmation in viewfinder. No manual focus. • Mode: Release priority. • Focusing range: 2'2 1/2" to infinity, with maximum magnification ratio of 1:0.6.	• Electronically controlled lens shutter with speeds from 3 to 1/300 sec. • ISO 50-3200 in full-stop increments, with noncoded cartridges and codes for films slower than ISO 50 rated at ISO 100. • One 6-volt lithium cell (2CR5). • Single frame and continuous (to 2 fps). Multiple exposures.	• 25-105mm f/3.8-4.8 power zoom. Accepts 52mm filters.
YASHICA SAMURAI Z, Z-L 1 lb, 1 oz 4 1/4 x 2 1/4 x 4 1/4" \$620  Yashica Samurai Z-L	• Passive, TTL phase-detection system operable between EV 2 and EV 18 (ISO 100) with focus confirmation in viewfinder. No manual focus. • Mode: Release priority. • Focusing range: 2'4" to infinity, with maximum magnification ratio of 1:0.6.	• Electronically controlled lens shutter; speeds from 4 to 1/500 sec. • ISO 25-3200, with noncoded cartridges rated at ISO 100. • One 6-volt lithium cell (2CR5). • Single frame, low-speed (to 2 fps) and high-speed (to 4.5 fps) continuous advance. Multiple exposures.	• 25-75mm f/4.0-5.6 power zoom. Accepts 43mm filters.

* Height x Width x Depth

POPULAR PHOTOGRAPHY/OCTOBER '91



Flash photography: Reader Gary Ladd's 1972 lightning shot adorns many an Arizona postcard.

HELPLINE

SPARKY lightning strikes are almost impossible to capture with a handheld camera. Find a support.

STEAKY FANS call K & S for short: metal tubing to get telephoto from your enlarging lenses.

K & S More Metal



K & S Engineering offers the widest selection of metals for hobby, model and craft use.

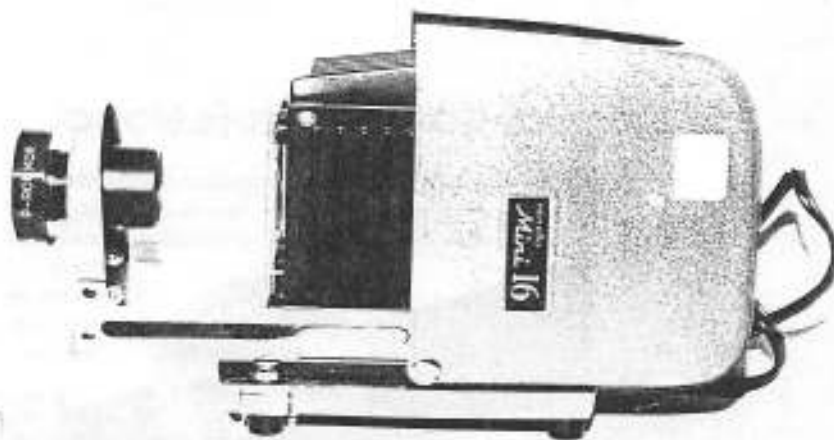
Illustrated here are 12" lengths of brass in round, rectangular and square tubing, angles, channels, rod, strip and streamline shapes. We also offer aluminum and copper tube, music wire and 4 x 10 inch sheet metal.

Send \$1.00 for our complete metal, wire and tubing catalog.

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EXPOSURE SYSTEM	VIEWFINDER AND EXTERNAL DATA DISPLAY	FLASH	FEATURES AND ACCESSORIES
• Metering: Dual-segmented evaluative or centerweighted averaging. Range EV 4 to EV 20 (ISO 100). • AE mode: Normal program. • AE features: On-demand, automatic backlight compensation, exposure compensation to ± 4 stops in $\frac{1}{2}$ EV increments, AE lock, program shift.	• Viewfinder: Shutter speed, aperture, AE lock, program shift, macro mode (all LEDs), focus and flash indicators (both LEDs). • External display: Frame counter, battery condition, film-advance and flash modes, bulb exposure timer, metering mode, self-timer, exposure compensation, subject distance scales, lens focal length. 	• Built-in, retractable, with flash-matic AE control, 3.5-second recycle time, guide number of 49 (ISO 100, in feet). Flash range: 1'6" to 13'. Pre-shutter-release flash-exposure confirmation. Special adapter port accepts more powerful, breech-loading external flash unit and TTL flash control. • Flash modes: Auto, autofocus, flash off.	• Features: Adjustable hand grip, mid-roll rewind with leader in/out option, cancelable beeper, system reset control, cancelable self-timer, electronic remote-release socket, others. • Accessories: Databack, IR remote release, shutter-release cords, dedicated flash, 200mm teleconverter, UV filter, grip strap, among others.
• Metering: Dual-segmented SPD cell takes TTL, centerweighted readings with auto switchover to spotmetering in backlit situations. Range: EV 3 to EV 18 (ISO 100). • AE modes: Normal and slow-shutter-speed (Synchro Flash) programs. • AE features: Automatic backlight compensation.	• Viewfinder: Focus confirmation and flash-ready LEDs. • External display: Flash and film-advance modes, frame counter, battery check, self-timer and databack indicators. 	• Built-in with flashmatic exposure control, 3.5-second recycle time, guide number of 46 (ISO 100, in feet). Working range: 2'7" to 9'10" (ISO 100). Hot shoe for optional flash. • Flash modes: Auto, autofocus, flash off (Night Scene mode), slow-shutter synchro flash.	• Features: Samurai uses one half of the standard 35mm frame (17 x 24mm). Built-in databack imprints date or time. Automatic multiple-exposure feature fires four shots in rapid succession on one frame. Self-timer fires single frame or three-shot sequences. Built-in dioptic corrector, battery check, midroll rewind, more. • Accessories: Hand strap, eye cup, 1.4X teleconverter, 20mm wide-angle converter, close-up lens (to 1:3.5), flash diffusion filter, among others.
• Metering: Dual-segmented SPD cell takes TTL, centerweighted readings with auto switchover to spotmetering in backlit situations. Range: EV 3 to EV 18 (ISO 100). • AE modes: Normal and slow-shutter-speed (Synchro Flash) programs. • AE features: Exposure compensation to ± 2 stops in $\frac{1}{2}$ EV increments, automatic backlight compensation.	• Viewfinder: Focus confirmation and flash-ready LEDs. • External display: Flash and film-advance modes, exposure-compensation scale, frame counter, beeper status, intervalometer indicator, battery check, databack indicator. 	• Built-in, retractable, with flash-matic exposure control, 3-second recycle time, guide number of 46 (ISO 100, in feet). Working range: 2'4" to 9'10" (ISO 100). Hot shoe adapter available for optional flash. • Flash modes: Auto, autofocus, flash off (Night Scene mode), slow-shutter synchro flash.	• Features: Samurai Z-L is specifically designed for use by left-handed photographers. Both Z and Z-L use one half of the standard 35mm frame (17 x 24mm). Other features: Built-in databack imprints date or time. Two multiple-exposure modes, including automatic firing of four shots in rapid succession on one frame. Cancelable beeper, intervalometer. Self-timer fires single frame or three-shot sequences. Built-in dioptic corrector, battery check, midroll rewind, more. • Accessories: Hand strap, eye cup, adaptor ring, 1.4X teleconverter, close-up lens (to 1:3.5), others.

* Note: Not all minilabs are equipped to print half-frame 35mm film.



COLLECTOR'S ITEM
Minolta Min-16 16mm slide projector.
Submitted by J. Adler



First you find it, then you set it.

COLLECTOR'S ITEM

This is Kodak Pocket Rangefinder with pen-type pocket clip. Not easy to find, but still seen at the shows, and worth the search: if you've got a rangefinder-less submini with a long telephoto.

Que no se enteren que está grabando una conversación

Este equipo contiene un grabador que usted puede ocultar en el bolsillo de su saco. Sólo es necesario sacar la pluma para que comience a grabar. Al poner la pluma en su lugar la grabación se suspende. Graba durante seis horas continuas. Su inversión vale por la información que obtendrá.



Precio: N\$ 10,091.00
Clave: 13-SM-03
Flete: N\$ 180.00

La oscuridad quedó atrás

Con este aparato es posible ver lo que escapa a la oscuridad. Es práctico y muy útil para expedientes, campamentos, cacería, pesca, investigaciones científicas, navegación a través de neblina, etc. Utiliza dos baterías AA (no incluidas). Tiene función de doble enfoque para máxima precisión.

Precio: N\$ 7,636.00 Clave: 13-SM-07 Flete: N\$ 180.00



Encendedor-Cámara

Con este elegante encendedor nadie se dará cuenta que usted toma las fotografías que quiere mientras enciende su cigarrillo o la tiene en sus manos. Viene en su estuche, con dos rollos y se pueden adquirir los que requiera en MERKatalogo.

Precio: N\$ 2,045.00

Clave: 13-SM-05 Flete: N\$ 91.00



COUNTER-SPY-SHOP
of Mayfair London
MEXICO CITY

No es una tarjeta de crédito... Es una grabadora.

Tan pequeña como una tarjeta de crédito, esta sorprendente grabadora puede llevarla en donde usted quiera o colocarla detrás de un cuadro o bajo un mueble para grabar hasta tres horas de conversación a una distancia de quince metros a la redonda, con un micrófono del tamaño de un grano de arroz. Nadie detectará que usted está grabando.



Precio: N\$ 9,545.00

Clave: 13-SM-11

Flete: N\$ 91.00

Reloj-Cámara profesional

Interesante reloj de pulsera para fotografiar discretamente documentos, personas y objetos. Incluye dos rollos y se pueden adquirir más en MERKatalogo cuando los requiera. El proceso de revelado es normal.



Precio: N\$ 1,909.00

Clave: 13-SM-04

Flete: N\$ 91.00

INTERNATIONAL

Al-

I thought you would get a bang out of this ad from the Aeromexico inflight magazine.

N\$ 2,045 pesos is \$331. N\$ 1,909 pesos is \$309. Fletes is shipping N\$ 91 is \$15. Cameras are, generally, very expensive in Mexico.

By the way is it an Acme? Doesn't look like a Minox.

Stephan Elliott

Exotic little 4mm rollover cameras were totally unavailable to amateur collectors during the cold war years.

A low budget spinoff of rollover technology is currently being marketed to Canadian aircraft modelers.

The STIKA will scan original art or copy, and deliver same size or enlarged copies on an adhesive backing.

Check exchange rates before you scramble to the phone.

NOMO a miniature Russian camera popular enough to have a worldwide fan club still has no U.S. importer. Info, shows, club updates: The Nomographic Society, 1351 5th Ave, NYC, NY. MORE UFO BUFFS swapping pix taken with subminiature cameras. George Knapp (702) 792-8201.

"DER MINOX-FREUND" Issues 1-20, 1958-1970 in book form. German language. Vision Art, P.O. Box 1780, Hope, BC, Canada VOX 1L0.

STiKA is a fully portable cost-effective graphics tool.

Use STiKA alone to scan clip art, business cards, books, or drawings and make your own signs, stickers, logos, crests and labels, from vinyl, trim sheets, frisket or iron-on material up to 2.5" X 18".

Or create original designs using SignMate software, a full featured lettering and graphics program available for Mac. or Windows.

3. Apply

Apply the design to any surface with application tape.

2. Cut

Simply place material into the slot, STiKA will automatically cut your design.

1. Scan

Scan the original with STiKA's built-in scanner.

FEATURES:

1. enlarges up to 12X
2. replaceable blades
3. 400 dpi scanner
4. size 8" X 6" X 3"



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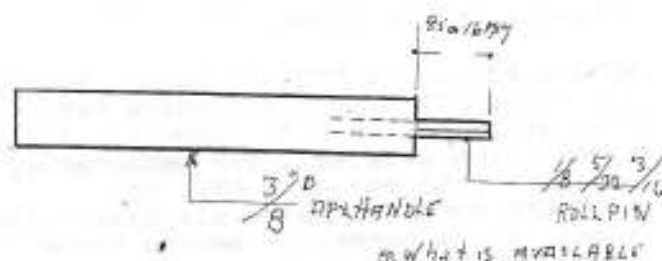
Plus S&H

Everything you need to get started is in the box.



OPEN FORUM: RESPOOLING

A friend recently discussed ongoing problems: Reloading Minox cassettes with long fingernails, and Minolta-16 prints that come back from her photofinisher improperly masked.



We sent these plans for a homemade film winder. Put film in slot, turn to wind, load cassette. Plans were submitted by ever helpful, Hershel Payne, Arlington, VA. Thanks, Hersch.

Talk to the printer if you're having masking problems, usually if you're a regular customer they'll be happy to keep your patronage.



THE PROBLEM

If you load cassettes with the perforations down, the bottom left side of your prints will be missing.



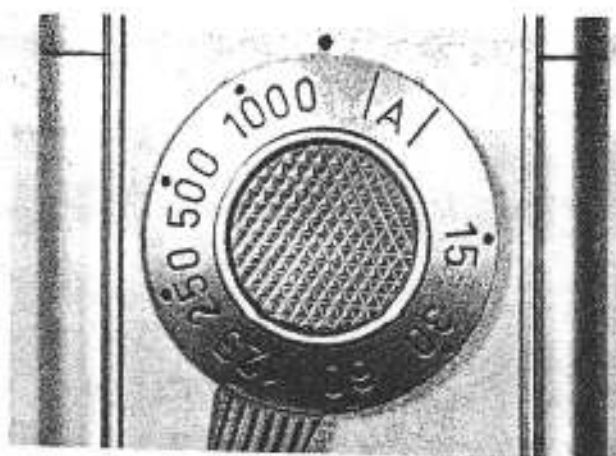
If you load with the perforations up, you get prints that include the holes. If this is confusing,

keep important subject matter in the upper right portion of your viewfinder when using local 110 labs.

Anyone having other problems with Minolta, Rollei-16, Mamiya-16 color processing? All comments welcome.

FREE CLASSIFIED

FOR SALE Russian Minox copy, black, 20 to 24 frames per spring winding. Shutter to 1/500 sec. Case, plus one 9.5mm cassette \$1,000
Ron Weingarten, Northridge, CA (818) 380-5783
PROCESSING 110 to 4 x 5 black and white.
Strophall Pro Photo, Box 1942, Greeley, CO 80632
CONFIDENTIAL PROCESSING 8MM TO 5X7"
SAGE: World of Photography, Inc. P.O. Box 2423, Morgan City, LA 70381.



HELPLINE

MINOX C OWNER needing "time exposures occasionally". Local mavens say you can find a 'T' spot on the Minox C by turning the shutter speed dial to the position shown.

Close camera or cover lens to end exposure. Another spot is between A and 1/15.

NEEDS SLIDES Ektachrome 7240 (tungst) 16mm x 200' on sale now \$14.50 Midwest Photo Exch. (614) 261-1264.

ED IN MONTGOMERY and others hunting 620 film spools for 8mm or 16mm Cinelargers: Noble, Box 46, Marion IA, 52302 (319) 377-3983.

QUICKFINDER 11/85

Federal Cinelarger 16mm to 127.....	\$59 B
Mamiya Super-16.....	75 J
Mighty.....	200 M
Minicord gold and brown.....	300 D
Minox B chr kit in display case.....	1500 R
Minox EC w/flash adapter, box.....	139 C
Minox enlarger.....	200 H
Mycro w/instructions, box.....	100 J

B Brooklyn Camera Exch.....	(718) 462-2892
C Camera People.....	(303) 864-6045
D Dan Morgan.....	(915) 584-8584
H Leonard Hart.....	(713) 868-9606
J Jerry Brod.....	(810) 527-2862
M Bill Moritz.....	(815) 886-0101
R Bill Rogers.....	(702) 382-8736

THE GREAT SPY MOVIE FAN CLUB

Topaz ('69) Suspense. A French agent (Frederick Stafford) helps a CIA agent (John Forsythe) trace leaks and Soviet activity in 1962 Cuba. With Dany Robin. ★★★
(2:30) **A13** Sat. 7 p.m.; 11 p.m.

"TOPAZ" Black operation gets the full Hollywood treatment. Bunky jumps from windows with Tessina in hand when it would be easier to take the elevator! Subminis hidden all over the place. Our favorite, the one in the chicken! Subminiature lives. ****