OFF THE SHELF FORENSICS

UT NFA Instructors
What is off the shelf?

- These are items that are readily available to us locally that we can repurpose for forensic applications.
- The definition has expanded to include additional sources because it depends why we are doing it.
Why?

- Cost
  - Not just the agency
- Time
- Do more
Crime Scene Processing
Powder for Snow Impressions

- In the past we have used snow print wax
- Several companies have developed powders now as well for the same purpose
- Both have good and bad points
Powder Snow Prints

This works because powder coat paint is actually plastic. It will not combine with water and the powder is very fine. All we do is shake the bottle and squeeze out the powder that is in the air in the bottle. This results in a nice even thin coat of powder. This product works no matter how long it is in the cold and is not affected by varying storage temperatures (being in the car). The bottle picture here will last us years and cost $6.00.
What not to do
16 Oz. Powder Coat Paint - Red

Item #93300

Add to My List | View Shopping Cart | Print This Page

Create a nearly indestructible finish with powder coat paint

Price: $5.89

Quantity: 1

ADD TO CART

Customers Who Bought This Also Bought:

- Powder Coating System
  Comp: $169.99
  Sale: $99.99

- 20 Fl Oz. HVLP Gravity Feed Air Spray Gun Kit
  Comp: $49.06
  Sale: $15.99

Double click on image to view full picture

Law Enforcement Innovation Center
INSTITUTE FOR PUBLIC SERVICE
Stamped Evidence Bags
BOONE COUNTY SHERIFF'S DEPT.

CASE #   DATE

UNIT #   NAME

SUSP

VICTIM

TYPE OFF

DESCRIPTION OF EVID.

ITEM #
- Great for holding scales on vertical surfaces.
- Holding doors open
- Holding evidence tents in place
Evidence Tents

- We have done them on business card stock
- Tend to be too small and difficult to see
- Blow away in the wind
- Hard to use in grassy areas
Staples Index Cards 3" x 5" Line Ruled Neon Assorted Color, 300/Pack

Product Details
• 3" x 5"
• Line ruled, assorted neon multicolor

Price: $5.99

Expected Delivery By: Wednesday, August 03

Available at:
7669 Mall Road
Florence, KY 41042

Special Financing Available
Free Pick Up In Store
ShopRunner Eligible

Law Enforcement Innovation Center
INSTITUTE FOR PUBLIC SERVICE
• Each tent is a 3x5 “page”
• Allows for easy printing of specific sets
• Very easy to replace what you use
• Very cheap to deploy to patrol units
Forensic Light Source Alternatives

- RGB Light with remote


by UNIFUN

Price: $29.99
Sale: $9.99
You Save: $20.00 (67%)

In Stock:
Want it Tuesday, Aug. 9? Order within 25 hrs 12 mins and choose Two-Day Shipping at checkout.

Details
Sold by TECKIT and Fulfilled by Amazon.

Eligible for AmazonSmile donation.

- Color Changing: E27 Led RGB bulb is dimmable with 16 colors and 4 modes, including red, orange, yellow, green, blue and purple, Flash, Strobe, Fad, Smooth.
- Remote Controller: Use 1 remote controller can adjust multiple bulbs within 3 meters in one time.
- Color/Function Memory: the led bulb has memory when you turn it off by a switch.
- Long Lifespan: Superior heating output and long lifespan up to 30,000hrs.
- Multifunctional Applications: bars, KTV, stage, clubs, casinos, restaurants, coffee shops, birthday parties and wedding banquet, chandeliers, festive lights, other indoor and outdoor decoration.

See more product details
Forensic Light Source Alternatives

Feit Electric A19/1100R/LED A19 16W/75W Soft White Bulb
by Feit Electric

List Price: $32.26
Price: $14.78 & FREE Shipping
You Save: $17.48 (54%)

In stock.
Estimated Delivery Date: Aug. 15 - 18 when you choose Expedited at checkout.
Ships from and sold by Electrical Supply & Lighting.

- Dimmable Performance A19 16W (watts) equivalent to 75W (watts)
- Replacement for general lighting, etc
- Save $152 on energy cost over lifetime of Performance LED bulb
- Average bulb life 25,000 hours, estimated life at 3 hours per is 22.8 years
- Omni directional LED, fully dimmable to 5%, 1100 lumens

See more product details

14 new from $9.80

Featured deals during Home Improvement’s Summer Renovation Event
Latent Print Processing
Giottos Rocket Air Blaster

Giottos AA1900 Rocket Air Blaster Large - Black
by Giotto's
$9.75
Get it by Tuesday, Aug 9
More Buying Choices
$9.75 new (20 offers)
$9.02 used (2 offers)

Giottos AA1910 Medium Rocket Air Blaster (6.6)
by Giotto's
$8.85
Exclusively for Prime Members
Get it by Tuesday, Aug 9
More Buying Choices
$8.85 new (6 offers)
$7.49 used (2 offers)
Giottos Rocket Air Blaster

- Latent Print cleaning
- DNA Safe
Giottos Rocket Air Blaster

- Very effective cleansing of dust before lifting
- Does not transfer DNA
- Exceptional for magnetic powder on ferrous metals
Giottos Rocket Air Blaster

...other uses

- Inflating Latex / Nitrile Gloves prior to processing for latent prints
Giottos Rocket Air Blaster

...other uses

- Safely inflating balloons in plastic shopping bags prior to processing for latent prints
NFA 41 Black

Sticky side powder

- Desire for home-made version with a longer shelf life
- Problem with lack of suspension of powder over time
- Challenge to NFA class #41
NFA 41 Black

Detective Sean D. Flynn
Anderson County Sheriff’s Dept.
National Forensic Academy
Class #41
NFA 41 Black

Mixture

- Black carbon-based powder, 45g (90.22ml)
- Dawn Ultra liquid detergent, 45ml
- Corn Huskers Lotion, 5ml
- Water, 60ml
NFA 41 Black

Corn Husker’s Lotion

- Glycerin (natural/synthetic)
- sodium calcium alginate
- calcium chloride
- calcium sulfate - in the lotion as a thickening agent
- Oleoyl Sarcosine - a modified fatty acid, that is commonly used in products to enable dirt and oil to better suspend during washing
NFA 41 Black
NFA 41 Black
NFA Pink

**SCIENCEY MIX**
- .2g Rhodamine 6G
- 500 ml water
- 10ml Photoflo
- 15ml 2-Propanol

**WALMART MIX**
- .2g Rhodamine 6G
- 500 ml water
- 5ml Dawn dish soap
- 50ml 91% rubbing alcohol

- One big mistake
- For the sticky side of tape
- Great as a dye stain as well
Most Sebaceous

Least Sebaceous
Most Sebaceous

Least Sebaceous

555 nm no filter
Most Sebaceous

Least Sebaceous

495 nm orange filter

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Cartridge Case Electrolysis
Technical Report


Fatima Nizam¹
Wade Knaap²
John D. Stewart²

Abstract: This paper examines whether electrolysis could be a useful method in the development of latent fingerprints on fired brass cartridge cases. The influence of electrolysis on galvanic metal corrosion was explored. We found that the clarity of the fingerprints was time sensitive and improved as acid concentration increased with lower duration of electrolysis.

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Forensic Identification Services, Toronto Police Services, Ontario, Canada

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Solution:
650ml of water
1ml of 28% hydrochloric acid
Power Supply
Or you could...
• Very short burst of electricity (about 1 second check for development)
• Repeat
• Post development halt process with baking soda and water solution
• If you skip this step development will continue and potentionally obliterate the print
Ruvis
Photography and Imaging
OTG Phone Capability

■ On The Go protocol
  - *Phone can be used as a host or slave*

■ Android only

■ Legal
- Equipment
• The future
CameraFi is an app to display and record video, take a picture from a USB UVC camera which is connected to Android phones or tablets.

Partnerships and library use, please contact the following email:

sales@vaultmicro.com

http://www.camerafi.com
BlueFire 7mm 5M Android OTG Endoscope Tube for Phones with OTG and UVC Function

by BlueFire

Price: $22.99

In Stock.

Solid by BlueFire Tech and Fulfilled by Amazon. Gift-wrap available.

Color: 16.4 Feet

- Support Android Phone has OTG and UVC function, such as Samsung Galaxy S6 S7 Edge, Note 2, Note 3, Note 4, Note 5.
- IP67 Waterproof 7mm Camera Head with 6 Adjustable LED Light, fully competent for different uses.
- High-resolution CMOS camera resolution: 640 * 480; 30 frames per second.
- Focal Length: 3mm - 8cm.
- Please download “CameraFi” app from Google Play Store to use this endoscope.

2 new from $22.99  2 used from $14.99

Roll over image to zoom in

A Full Selection of Professional Medical Supplies

Law Enforcement Innovation Center
INSTITUTE FOR PUBLIC SERVICE
Search Camera
Logitech HD Webcam with Fluid Crystal Technology, C270, Black

$22.99
List price $39.99  Save $17.00
FREE pickup today

Protect your purchase with a Care Plan

Add 2-Year Protection $2.00

Quantity: 1  Add to Cart
Add to Registry  Add to List

Sold by: Walmart.com
Shipping
See delivery options
FREE pickup today

AUKEY

Law Enforcement Innovation Center
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Self-Portrait Handheld Selfie Stick for Smartphones and Cameras, Black

Price: $3.63

Was: $4.27  Save $0.64

ShippingPass: FREE shipping on orders $35 + FREE pickup

Quantity: 1

Add to Cart

Add to Registry
Add to List

Sold by Walmart.com

Sold by Walmart.com

- No need to change. Just plug the aux cable into your smartphone and start shooting
- 2.6' extendable arm
- Accommodates devices up to 3-1/2' wide

More about this Item...
• Can do longer runs for cable with a USB extension cable
Difficult to recommend one specific app for this
Very powerful tool for photography
• Very useful for “pole” photography, copy stand work, and low light photography
Shooting Scene
Fiberglass Rods for Shooting Scene
FiberMarker, 1/4"x48", 20 Pack, Yellow Color, Snow Markers, Highway Markers, Reflective Driveway Markers
by FiberMarkers

Price: $30.50 w/Prime

Only 3 left in stock - order soon.
Sold by Mr Garden and Fulfilled by Amazon.

- High quality fiberglass rods, brand new. 20 pcs a set
- Diameter: 1/4", yellow color
- Durable fiberglass reflective snow markers are ideal for marking driveways and road ways
- One end is pointed that easily insert into the earth
- Top end has a high impact plastic cap, 360° reflective strip for maximum nighttime visibility

Report incorrect product information
FiberMarker, 1/4"x48", 20 Pack, Yellow Color, Snow Markers, Highway Markers, Reflective Driveway Markers

by FiberMarkers

Price: $30.50 w/Prime

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Report incorrect product information

2016 Tailgate Event
Find everything you need to celebrate the 2016 football season. → Amazon

Have one to sell? Sell on Amazon
- We cut the reflective potion off
- Use caution cutting fiberglass
Post Mortem Printing

- Powder with white label lifts
- Photos under glass
- Lift furrow powder with Accutrans or Dap white caulk
Post Mortem Printing

- Magnetic or Non-Magnetic powder
- Lift with address labels
Post Mortem Printing

- Address labels for fingers

Avery Shipping Labels for Laser and Inkjet Printers, White, 2 x 4 Inches, Pack of 100 (18163)
by Avery

Price: $3.99 Free shipping for Prime members when buying this Add-on Item. Details

In Stock.
Want it Tuesday, Aug. 9? Add it to a qualifying order within 24 hrs. 36 mins and choose Two-Day Shipping at checkout. Details
Ships from and sold by Amazon.com. Gift-wrap available.

Eligible for AmazonSmile donation.

- Compatible with the Avery Quick Peel Automatic Label Peeler (available separately) so you can peel and apply labels up to two times faster than by hand
- Use white shipping labels for all your shipping and mailing needs
- Customize with free tools, software and templates from avery.com
- Save time shipping products with Avery shipping labels
- Use white shipping labels for all your shipping and mailing needs
- Customize with free tools, software and templates from avery.com
- Save time shipping products with Avery shipping labels

Show more

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Post Mortem Printing

- Address labels for palms

Avery Shipping Labels for Inkjet Printers, 3.5 x 5 Inches, Box of 100 (8168)
by Avery

Price: $7.99 Prime

In Stock.
Want it Tuesday, Aug. 9? Order within 24 hrs 41 mins and choose Two-Day Shipping at checkout. Details
Ships from and sold by Amazon.com. Gift-wrap available.
Eligible for AmazonSmile donation.

- TrueBlock Technology completely covers everything underneath
- Labels are bright white for professional results every time
- Smudge free and jam free printing is guaranteed
- Customize with free tools, software and templates from avery's site
- Save time shipping with Avery Shipping Labels

52 new from $3.10 1 used from $798.83
Post Mortem Printing

- Palm Label
Post Mortem Printing

- Photos on scaled glass
Post Mortem Printing

- Use Accutrans or Dap caulk to lift powder from the furrow.
Post Mortem Printing

- Cover with parchment paper. The silicon in the paper will attach to the Accutrans.

- Follow-up with flat bed scanner with scale
Post Mortem Printing

- Pot for boiling technique per Aaron Uhle and FBI
Resource materials may be found at the National Forensic Academy website:

http://leic.tennessee.edu/2016IAI