

Image accuracy In **Law Enforcement**

Image accuracy
In
Law Enforcement
is important - because!

High-quality images
Put Criminals in Jail

High-quality images
Put Criminals in Jail
Low quality images
Set them Free

High-quality images
Put Criminals in Jail
Low quality images
Set them Free
two examples . . .

Is this getaway car green or blue



Camera (a)

Camera (b)

which camera is correct?



Is Tricia a redhead
or a blonde?

With DSC patented technology
You would Know!

DSC can streamline your workflow
from
Crime Scene videos
to the Evidence
you present in Court

DSC can also help with:

- ✓ **Resolution**
- ✓ **Greyscale**
- ✓ **Sharpness**
- ✓ **Distortion**
- ✓ **Skin tones**

and, because an image is
only as good as the **weakest link**,
in selecting and aligning . . .

- ✓ **Cameras**
- ✓ **Monitors**
- ✓ **Displays**
- ✓ **Projectors**
- ✓ **Printers**

Because . . .

Because . . .

Good Camera

Bad Printer

Bad Image

Because . . .

Good Camera

Bad Printer

Bad Image

Good Camera

Bad Projector

Bad Image

Because . . .

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Good Image

How to choose between . . .











the best projectors and printers?



Spec sheets are **unreliable.**

A recent RCMP study shows
that manufacturers' claims
Cannot be trusted.
So who can you trust?

DSC Laboratories!

Our credentials -

3 billion individuals enjoyed
better-looking TV and movies in 2017
through DSC technology

DSC makes custom products for major corporations including:

**Canon, NASA, NOAA, Panasonic,
RED Camera, Sony, The BBC, SKY TV**

Now, DSC has a control system for
Law Enforcement and Medicine

We call it **s2s** because it provides
Total Image Control
from **Scene2Screen®**

s2s Benefits:

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1. Extreme Precision,

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4. Controls image quality from

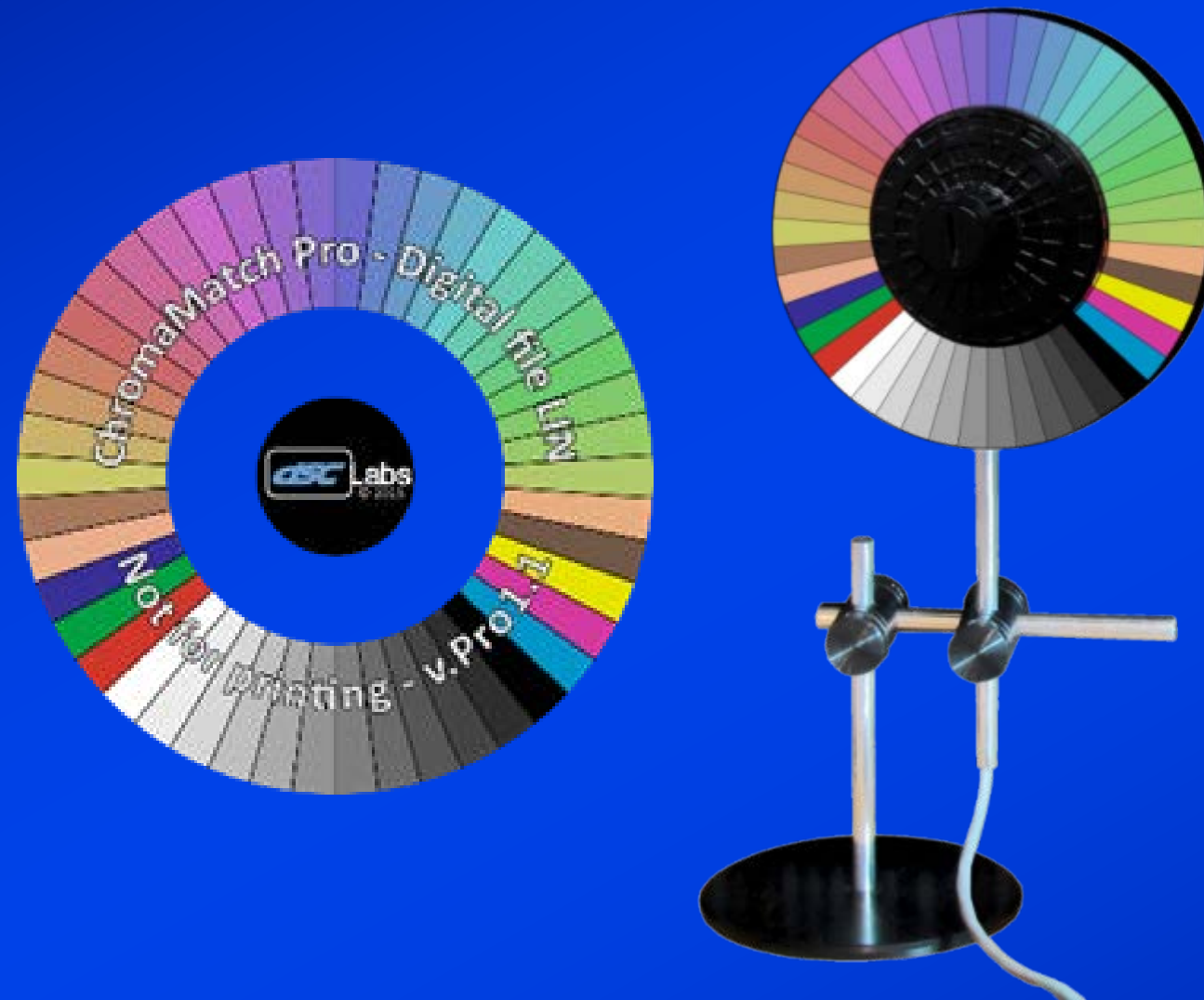
s2s Benefits:

1. Extreme Precision,
2. Repeatability,
3. Intuitive, easy to use
4. Controls image quality from

Camera to **Display** to **Print**

The **s2s** secret -
ChromaMatch[®]
Precision Image Control

ChromaMatch
has **two** elements



Reference Images and



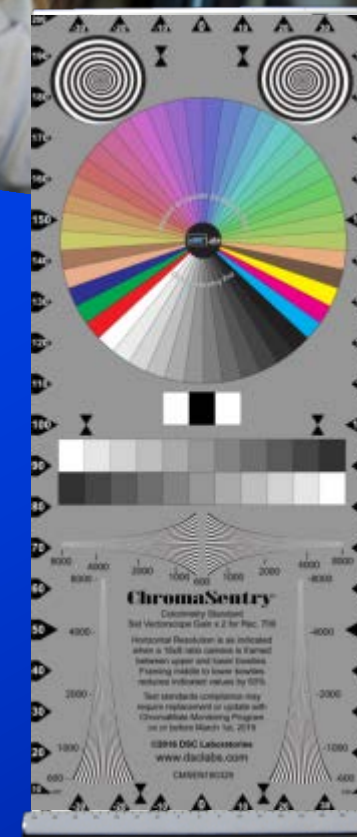
Precision Test Patterns – from
pocket-sized Chroma-Selfies®, to

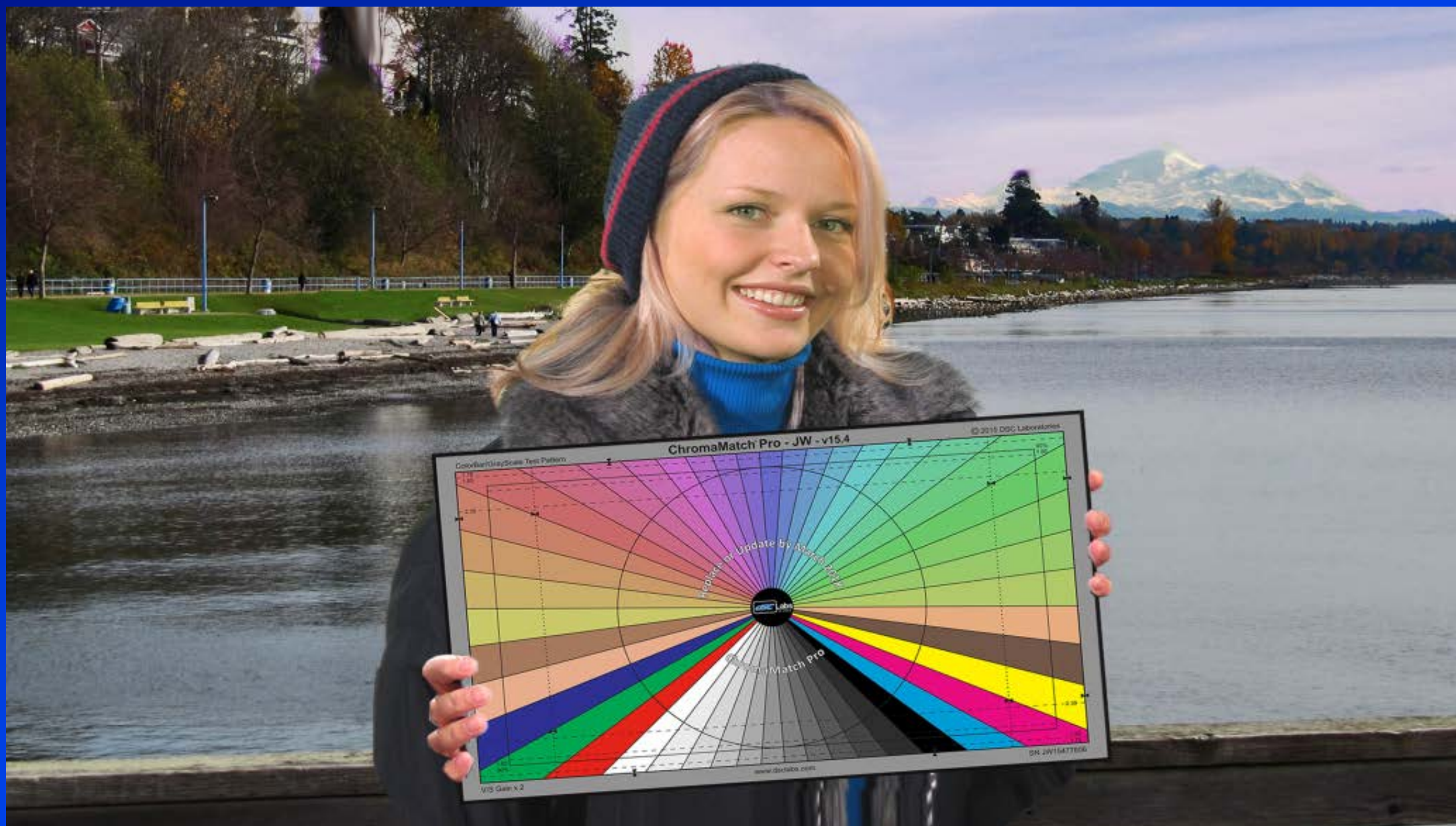


ChromaMatch Vista at the 2018 FIFA
World Cup in Russia. To use . . .

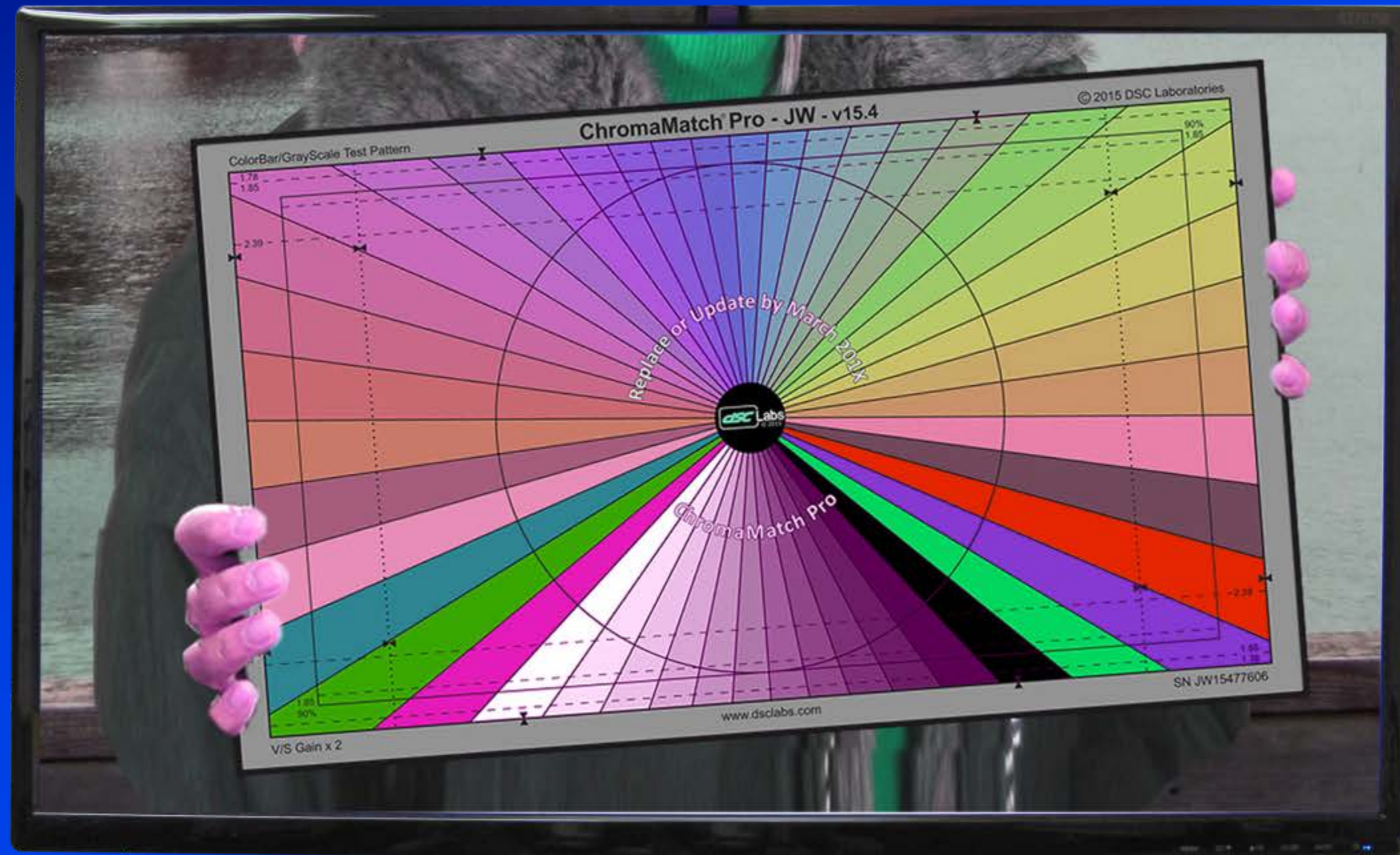


Simply shoot a
ChromaMatch
at the scene of a crime:

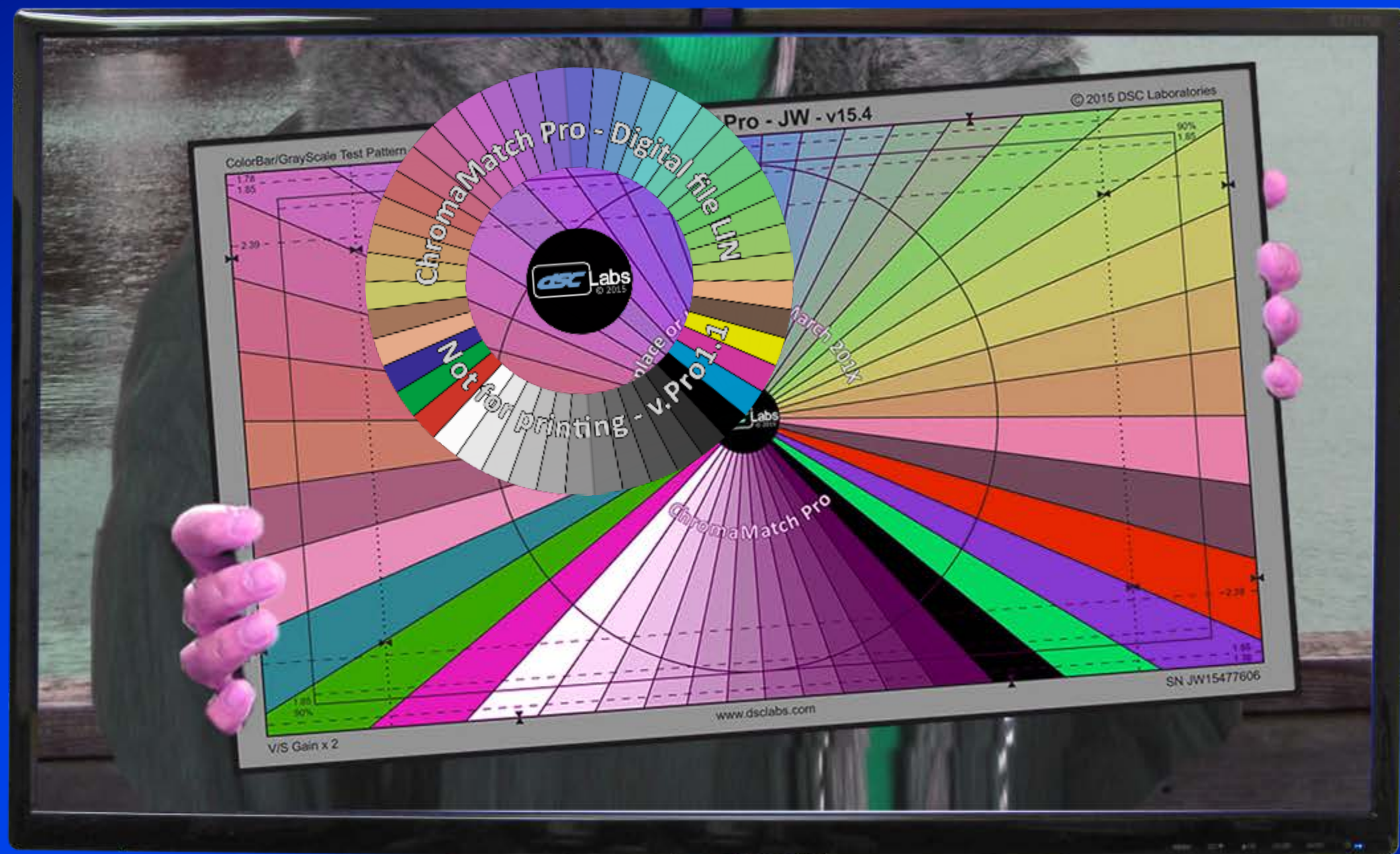




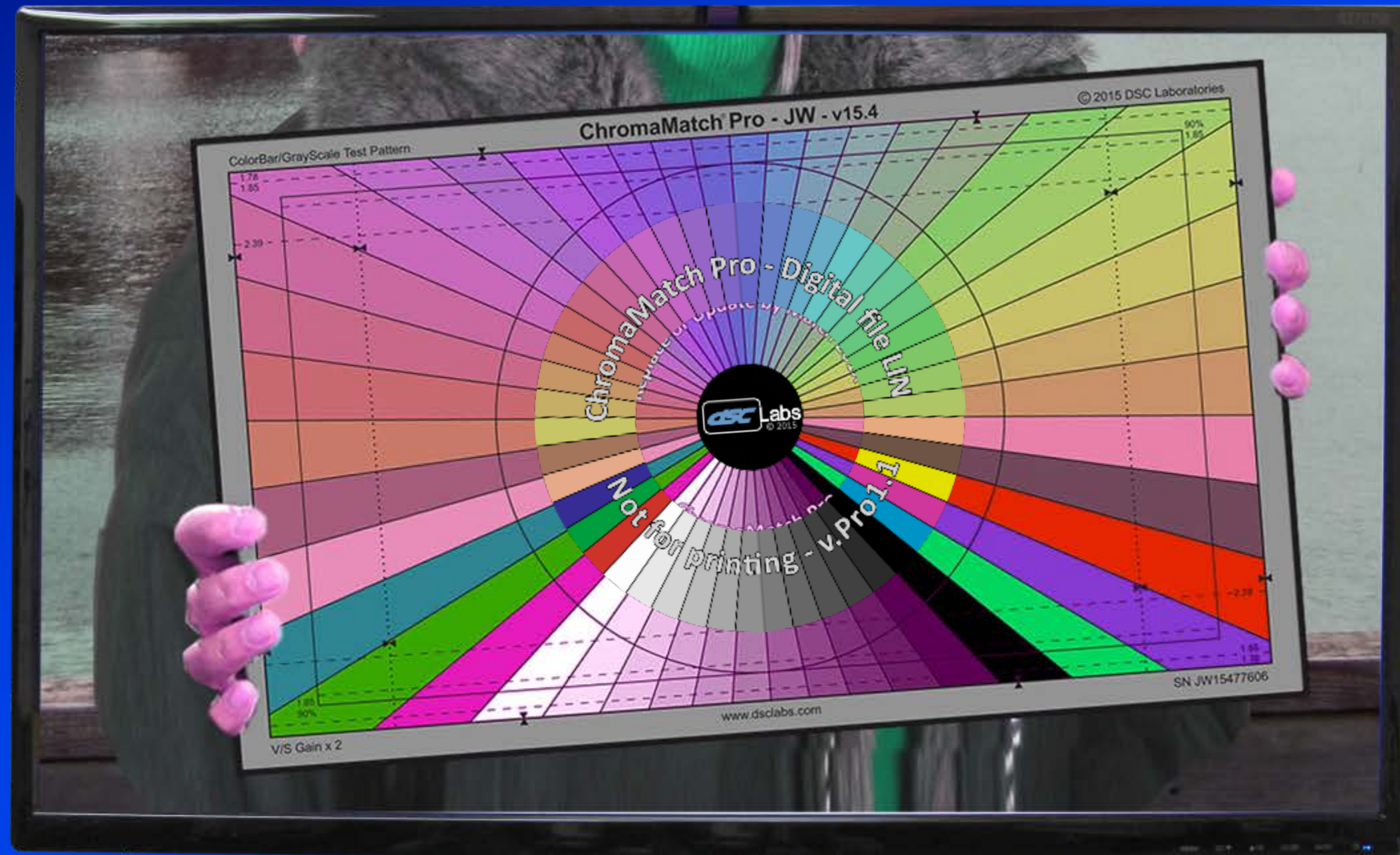
This is a peaceful crime scene!



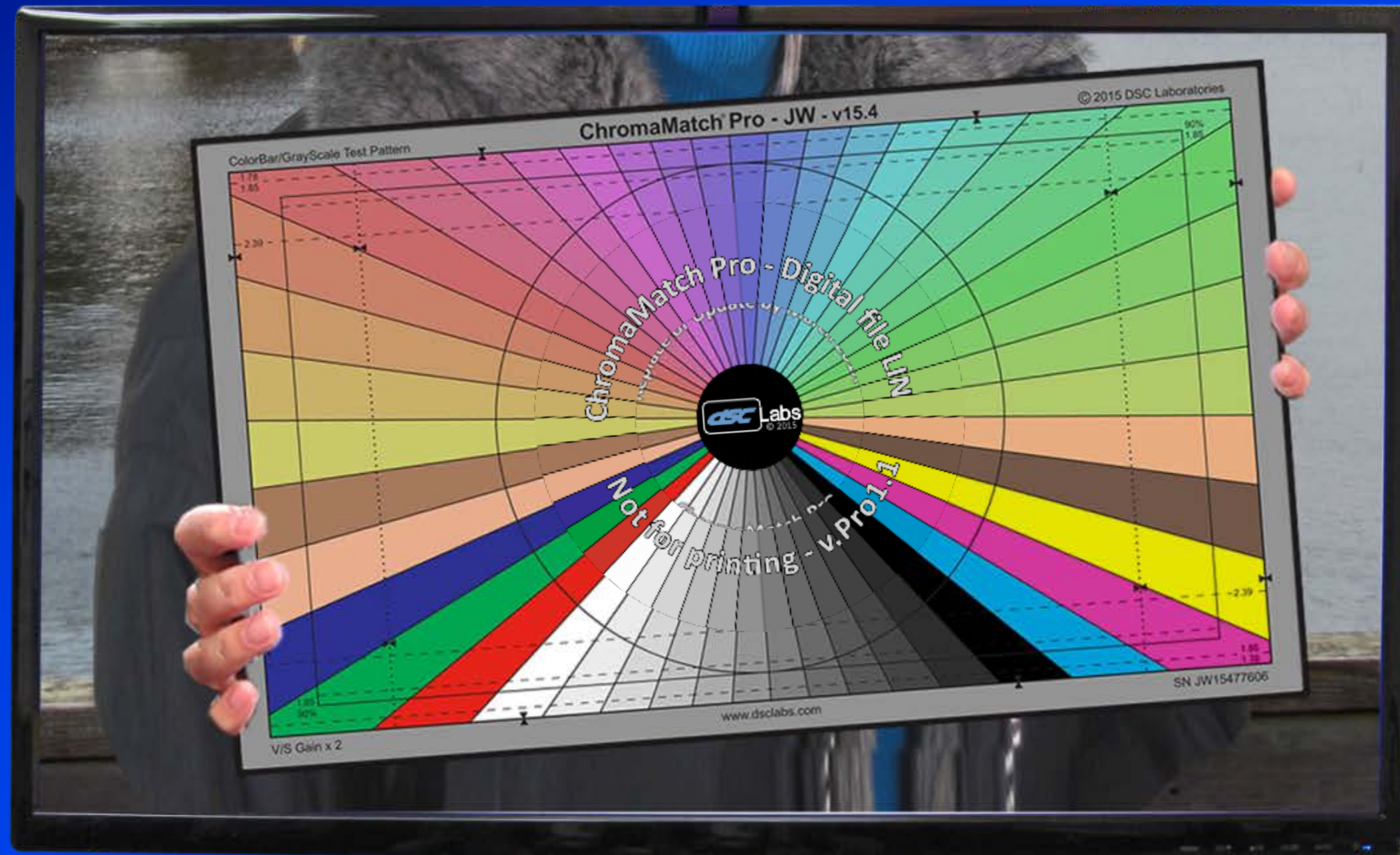
Open image in an editor



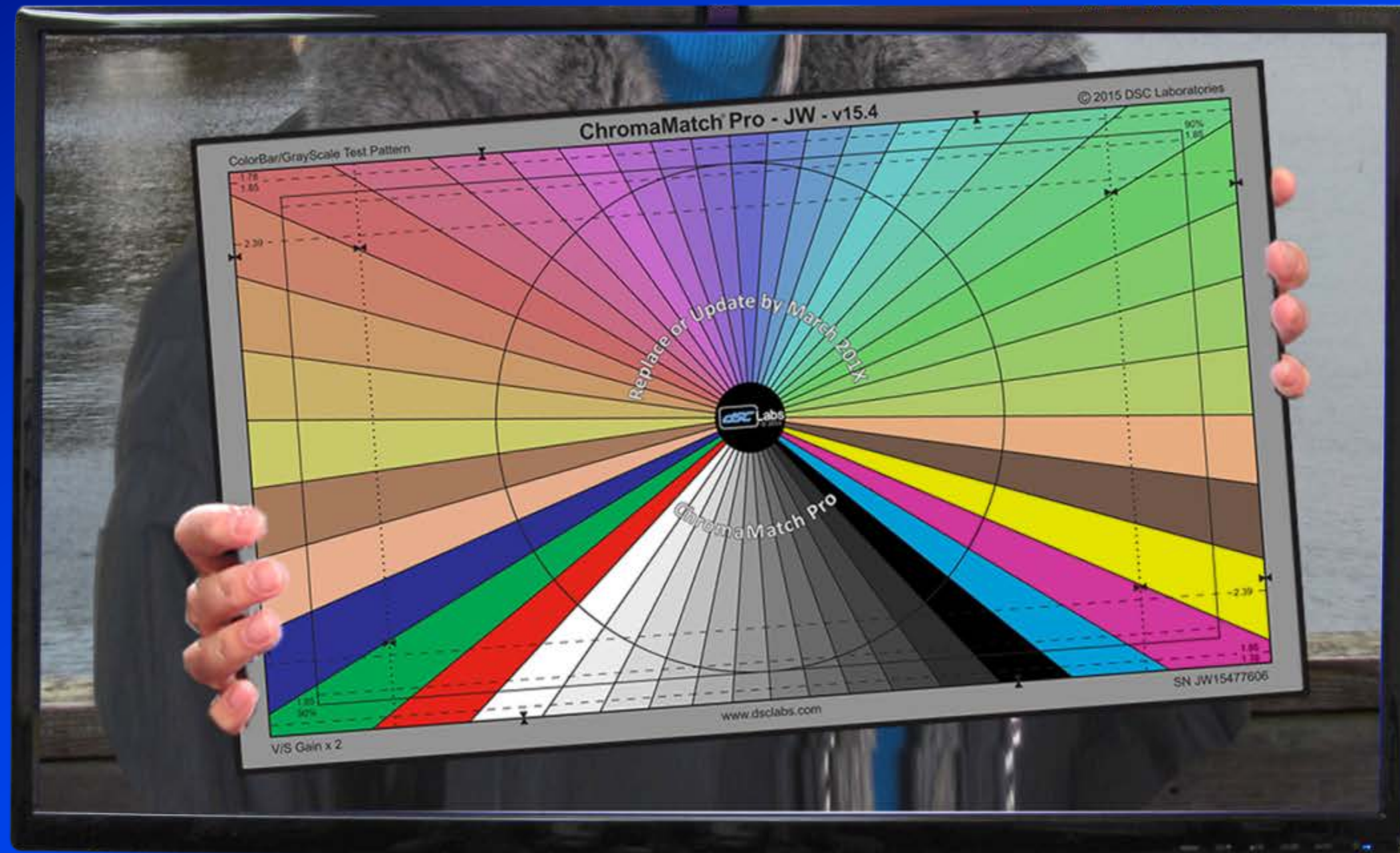
add the ChromaDigi file



and align the Images



correct any differences and

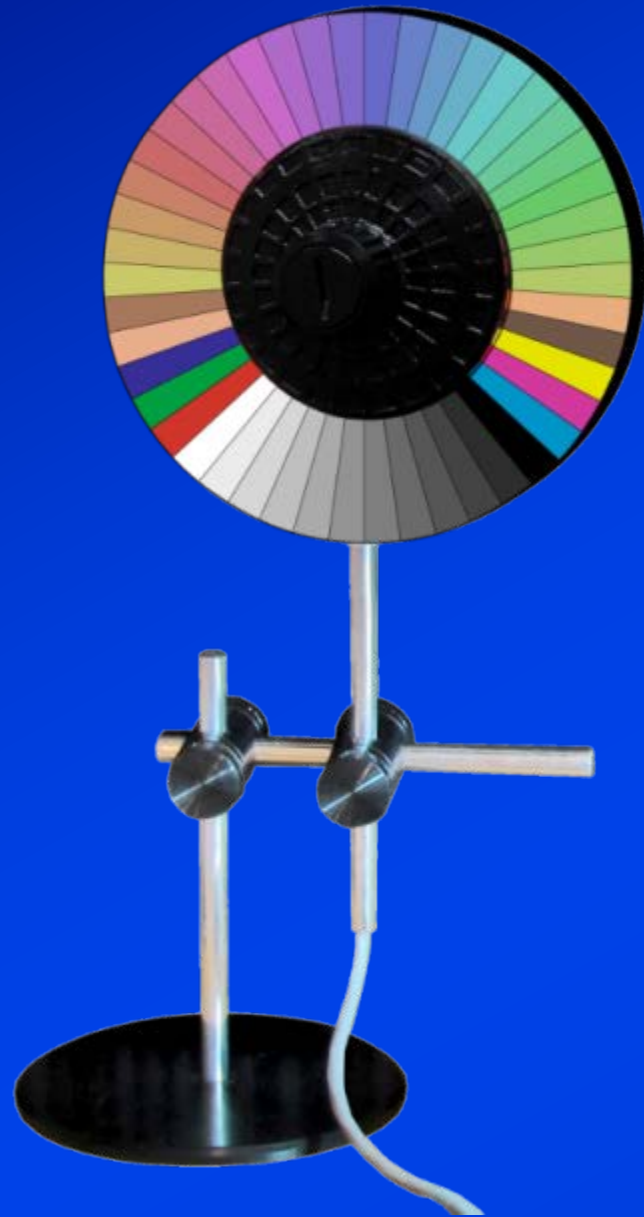


Voila! – it really is that easy!

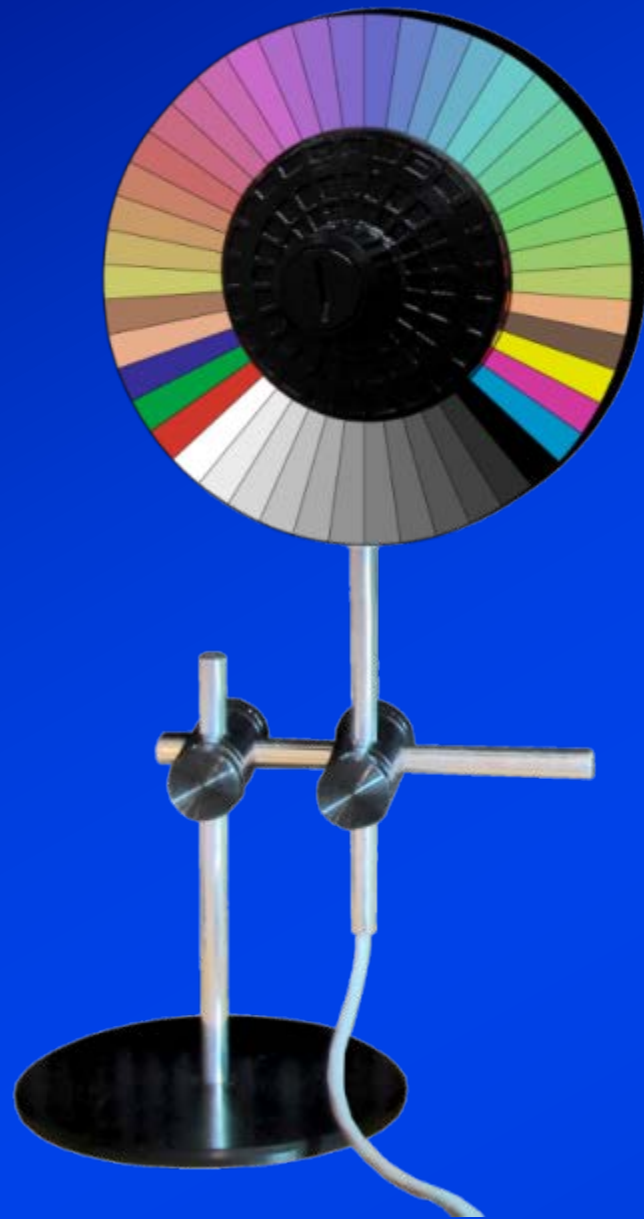
The image you shot now matches the digital reference, but the monitor could be out of alignment - let's fix it . . .

Electronic systems don't always correct
real images.

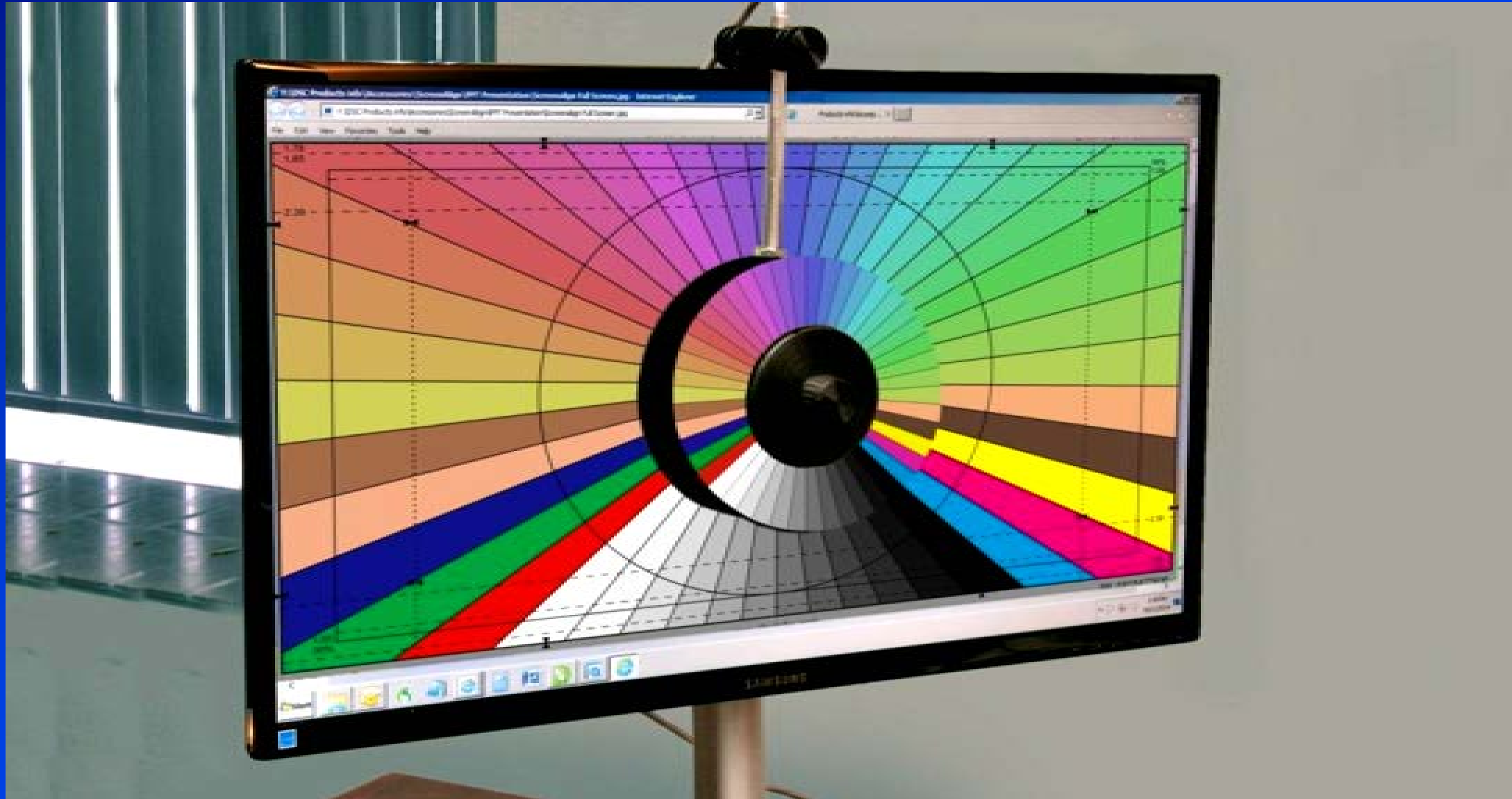
s2s uses **ScreenAlign®**



ScreenAlign can use electronics, but it's also WYSIWYG, technology you can trust.



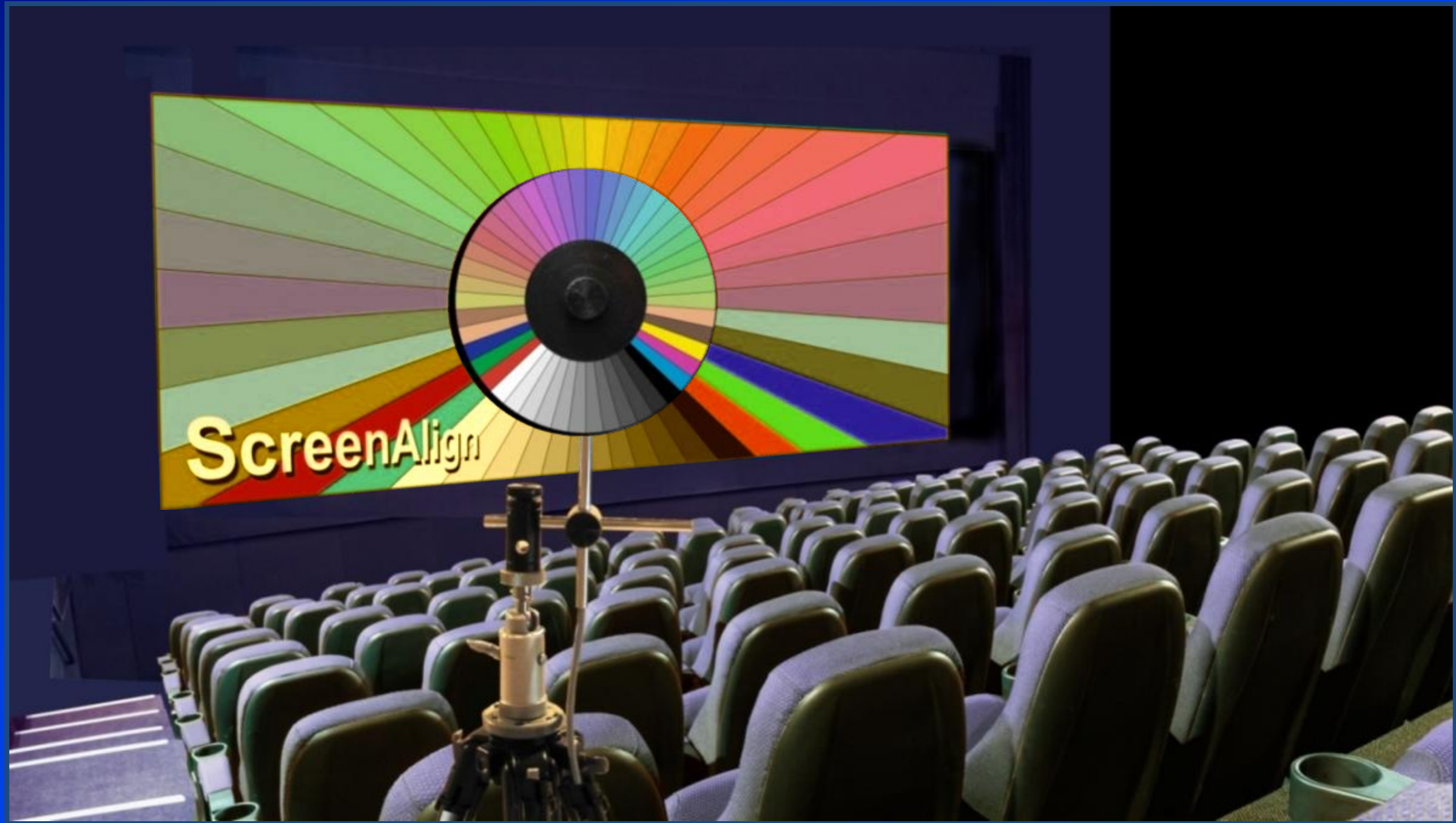
Simply run a ChromaMatch
digi image on a display, set
your **ScreenAlign** to the
desired colour temperature
and brightness and position
in front of display and . . .



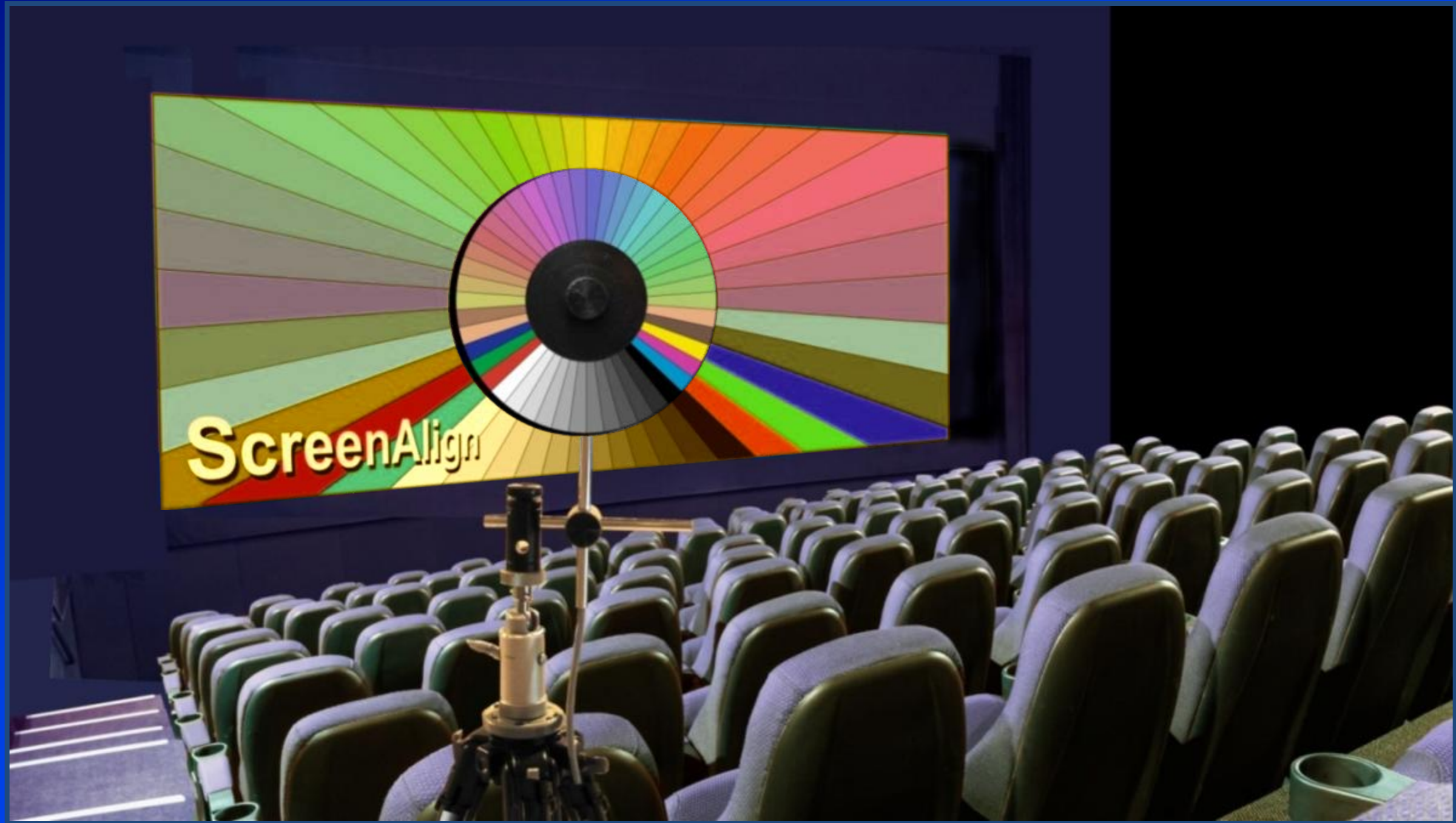
adjust the digital image on the display to
match your **ScreenAlign**.



Works with any display, even . . . 



Large front/rear projection systems



Let's fix this terrible colour!



Perfect and so easy!

Accurate evidence in Court
is important, **s2s** provides
Print-A-Match[®]



Adjust printer to your
Print-A-Match
reference – it's fast,
simple and precise.

In addition to producing
accurate images
Print-A-Match
saves time, paper and ink.



Now you've selected and aligned all your -
Displays, Projectors and Printers
using **s2s** - how about **Cameras?**

Selecting Cameras
for **Law Enforcement**
has always been
one huge **“Can of Worms”**



Millions of \$ € £ are misspent annually
purchasing inadequate equipment.
To address this issue, DSC developed . . .

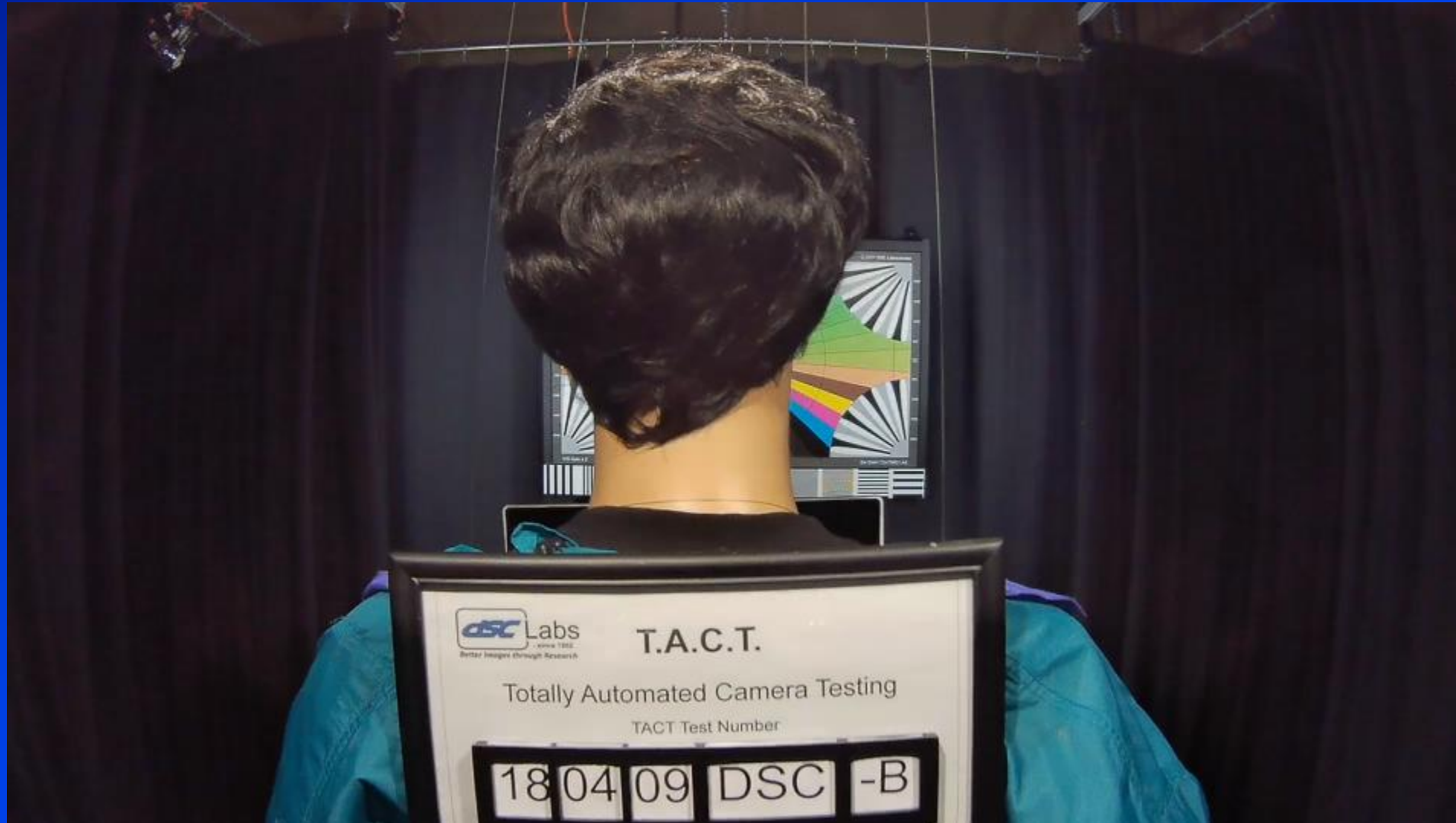
TACT™

“Totally Automated Camera Testing”

TACT, DSC's patented
\$345,000 Camera testing facility,
is exclusive to **s2s** Members.
Simply select the makes and models of
cameras you wish to compare.



TACT shoots identical videos...



of **“Harry the Humanoid”** skating around,
“he’s Canadian, Eh!”



The differences between cameras is alarming -
first we see . . .



4 Different cameras - Same tungsten light



4 Different cameras - Same tungsten light



4 Different cameras - Same tungsten light



4 Different cameras - Same tungsten light

It is important to know how a camera will behave under different light sources. The following shows Harry videoed by the *same camera* under four *different* light sources.



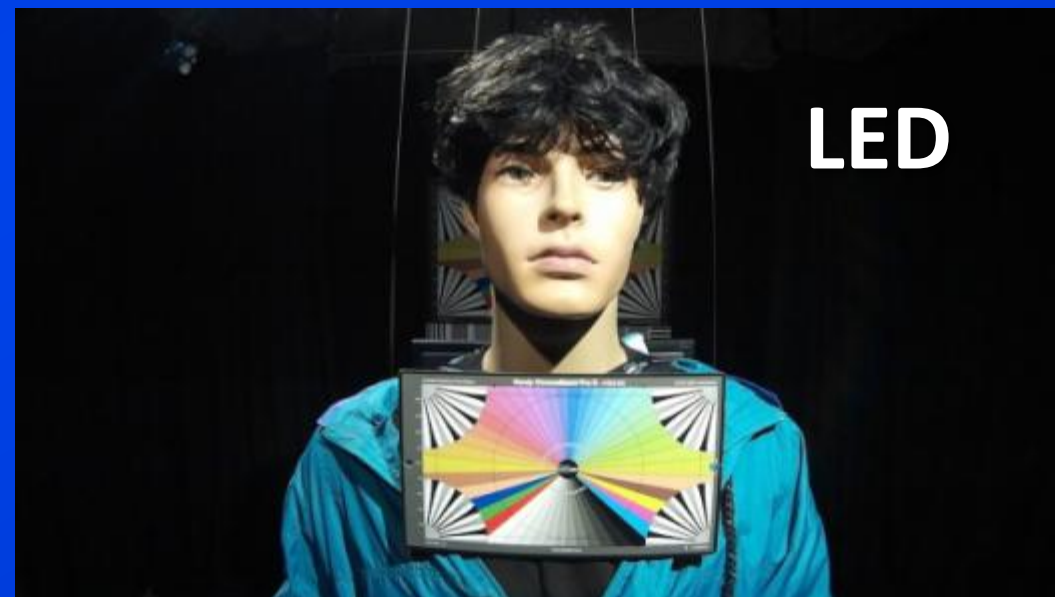
One camera - 4 different light sources.



One camera - 4 different light sources.



One camera - 4 different light sources.

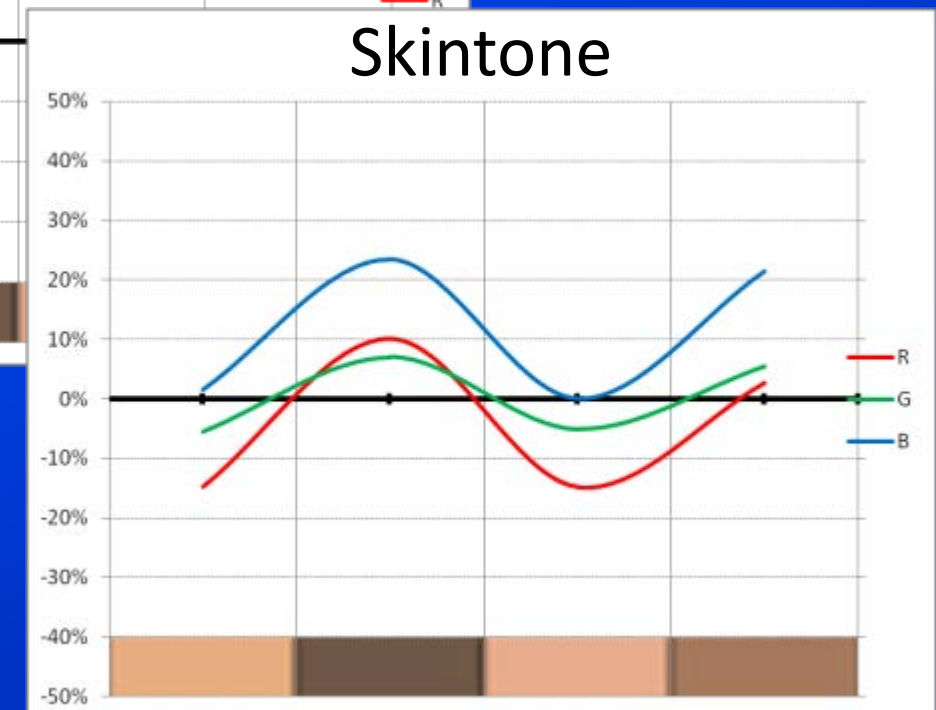
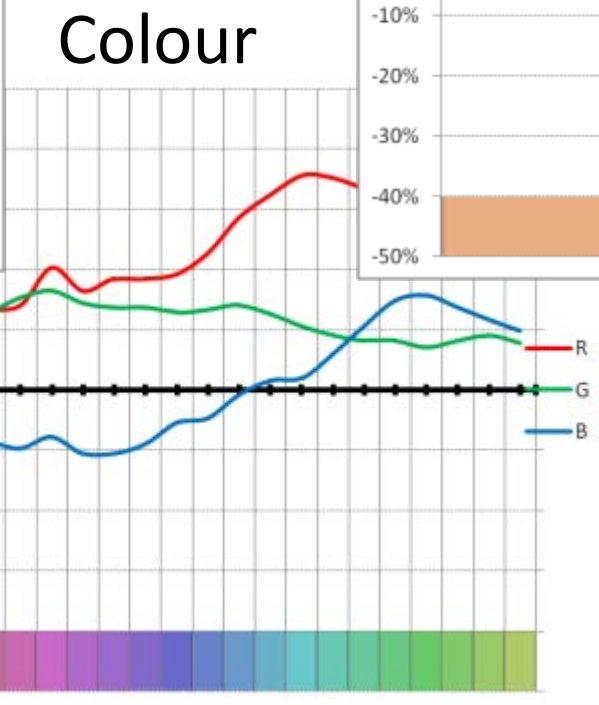
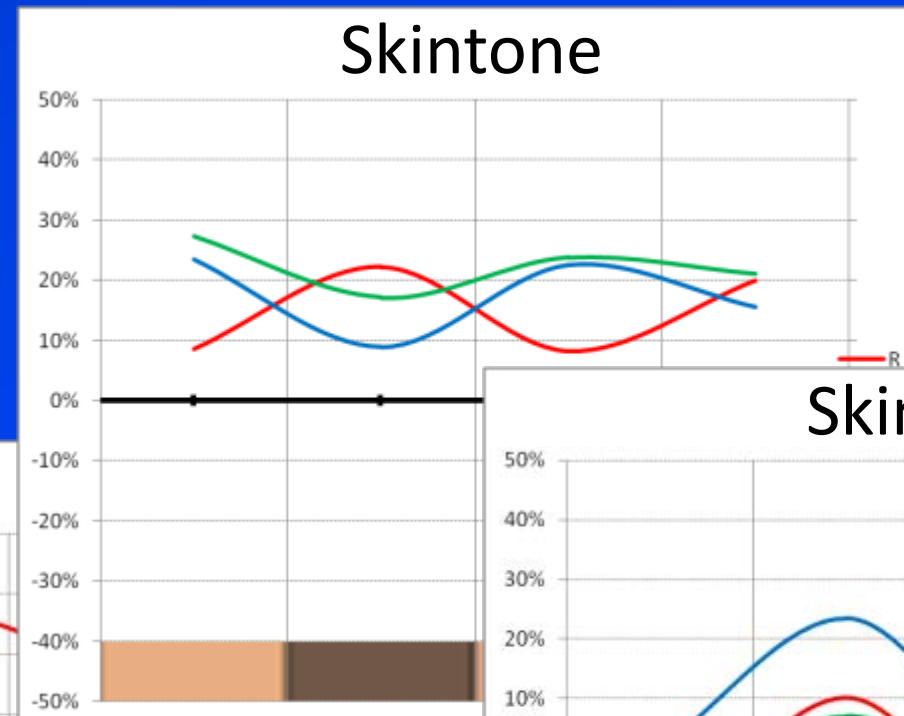
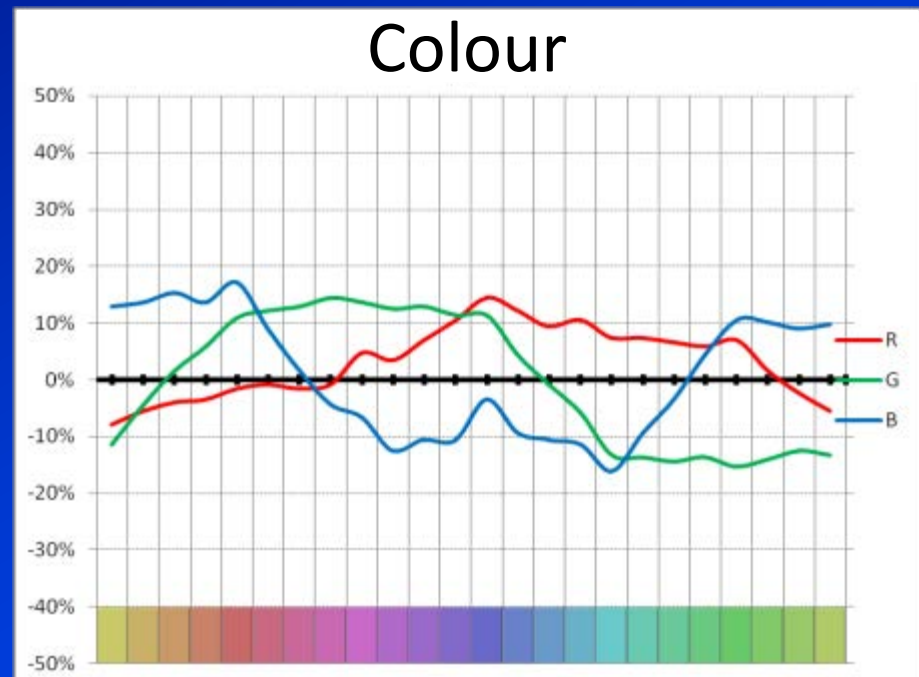


One camera - 4 different light sources.

Selecting the most suitable camera for a task has always been difficult . . .

TACT evaluates cameras up to 8k providing data on every aspect of image reproduction.
Even simulating an officer running towards a suspect.

Graphs show camera accuracy for every colour of the rainbow.



TACT also provides data based on standard
5-star system.

TACT System Report



Test Category	Camera A	Camera B	Camera C	Camera D
Dynamic Range (f-stops)	8	7	7	6
Greyscale Accuracy	★★★	★★★★	★★★	★★
Skintone Accuracy	★★	★★★	★★	★
Colour Accuracy	★★	★★	★★	★
Resolution Hor.	★★★	★★★	★★	★★★
Resolution Ver.	★★★	★★★	★★★	★★★★
Optical Distortion	★★★★	★★★★	★★★★	★★★★
Low Light Capability	★★★★	★★★★	★★★	★★
Rating	★★★	★★★	★★★	★★

This simple report compares four cameras,
which would you choose?

TACT System Report



Test Category	Camera A	Camera B	Camera C	Camera D
Dynamic Range (f-stops)	8	7	7	6
Greyscale Accuracy	★★★	★★★★	★★★	★★
Skintone Accuracy	★★	★★★	★★	★
Colour Accuracy	★★	★★	★★	★
Resolution Hor.	★★★	★★★	★★	★★★
Resolution Ver.	★★★	★★★	★★★	★★★★
Optical Distortion	★★★	★★★★	★★★★	★★★★
Low Light Capability	★★★	★★★	★★★	★★
Rating	★★★	★★★	★★★	★★

For highest resolution,
Cameras A&D

For best colour
Camera B

That was easy . . .

To **Catch** more **Criminals**
and **Improve PR**

s2s provides **ForensiChart™**



ForensiChart
is the ultimate security
camera reference -

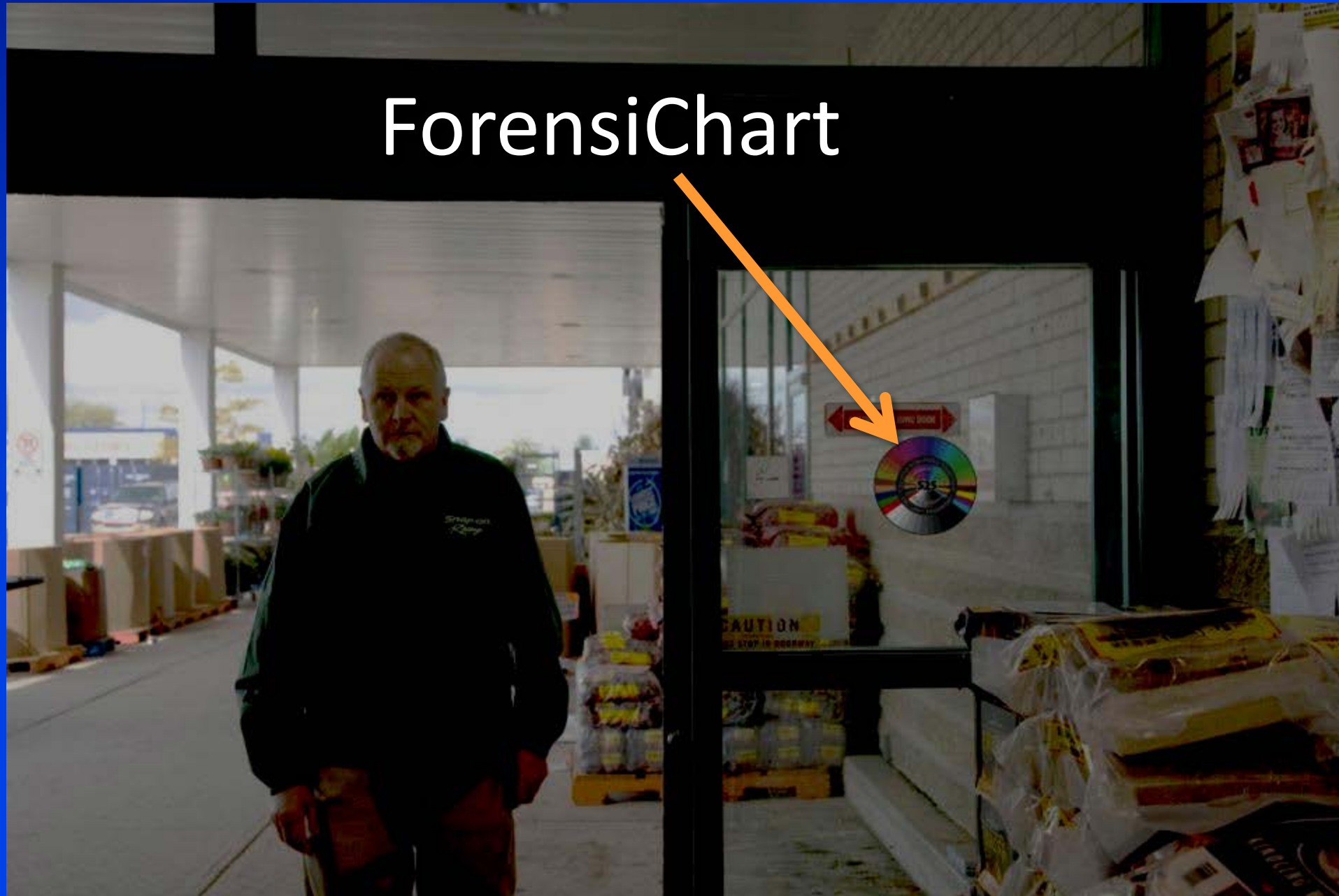


ForensiChart
ideal for **Government
Buildings, Banks, Airports,
Subways, other
Transportation hubs, Schools,
Stores, etc. etc**



Simply attach **ForensiChart**
to doorways in view of security
cameras - for example . . .

ForensiChart



What color jacket is he wearing?



To sum up . . .

Scene2Screen

Is the simple, precise solution
in law enforcement imaging issues
and has these benefits:

1. S2S is impartial in testing cameras, monitors, printers, etc.

2. DSC does not sell, favour or recommend any makes or models of equipment.

3. In fairness to equipment manufacturers, test results are provided in strict confidence for the sole use of the client and may not be shared or published.

To address ISO 9001 Standard concerns for maintaining accuracy, S2S Systems are subscription based.

This enables regular replacement or recalibration of test patterns and measuring instrumentation to known standards.



7 Benefits of **s2s**

1. Camera evaluation, selection, alignment



7 Benefits of **s2s**

1. Camera evaluation, selection, alignment
2. Display selection and alignment



7 Benefits of s2s

1. Camera evaluation, selection, alignment
2. Display selection and alignment
3. Printer selection and alignment



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5. Enhanced public relations



7 Benefits of s2s

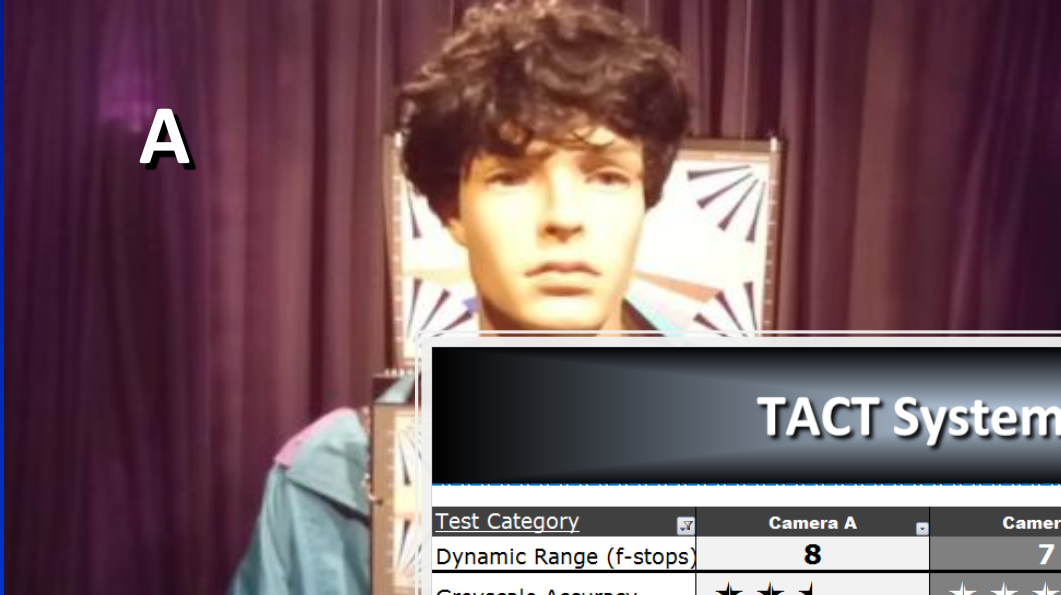
1. Camera evaluation, selection, alignment
2. Display selection and alignment
3. Printer selection and alignment
4. Automatic annual maintenance
5. Enhanced public relations
6. Economical – cost effective subscription



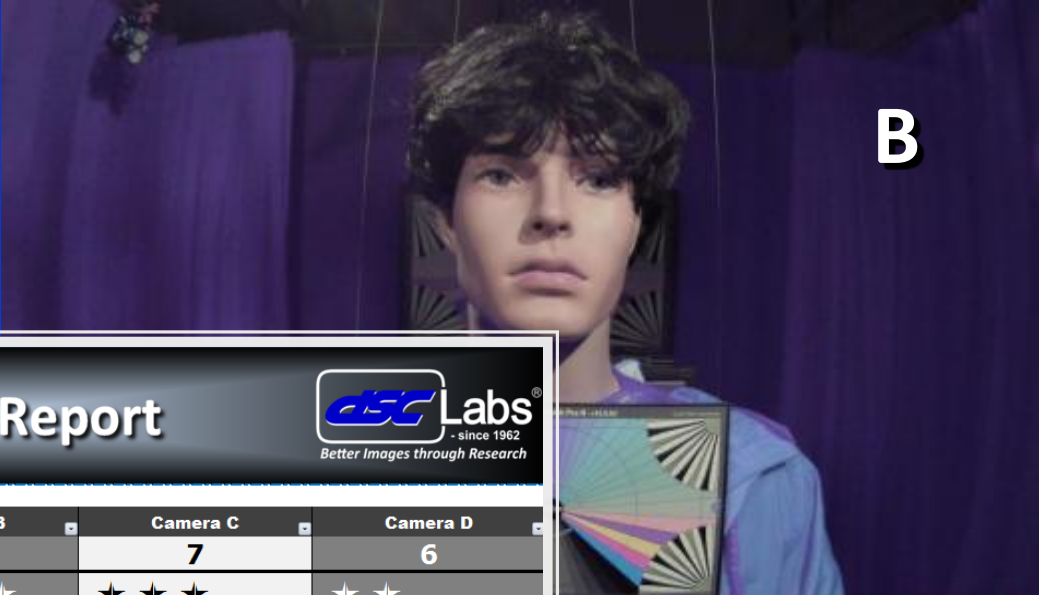
7 Benefits of s2s

1. Camera evaluation, selection, alignment
2. Display selection and alignment
3. Printer selection and alignment
4. Automatic annual maintenance
5. Enhanced public relations
6. Economical – cost effective subscription
7. Training at DSC Labs or by webinar

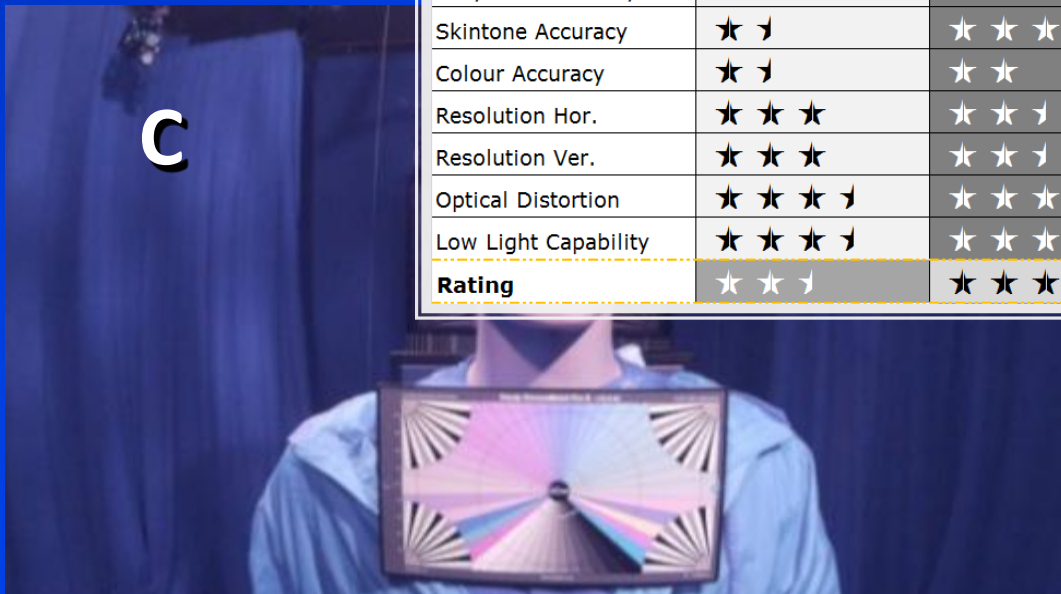
Standard **s2s** Membership
provides the following products and
services -
additional available as required



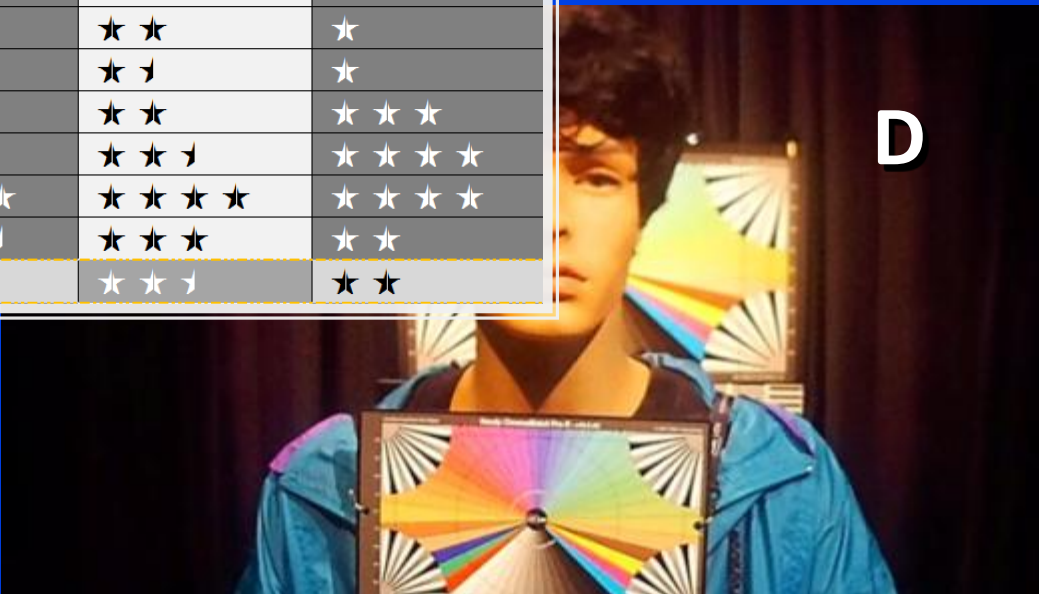
A



B




C



D

TACT System Report

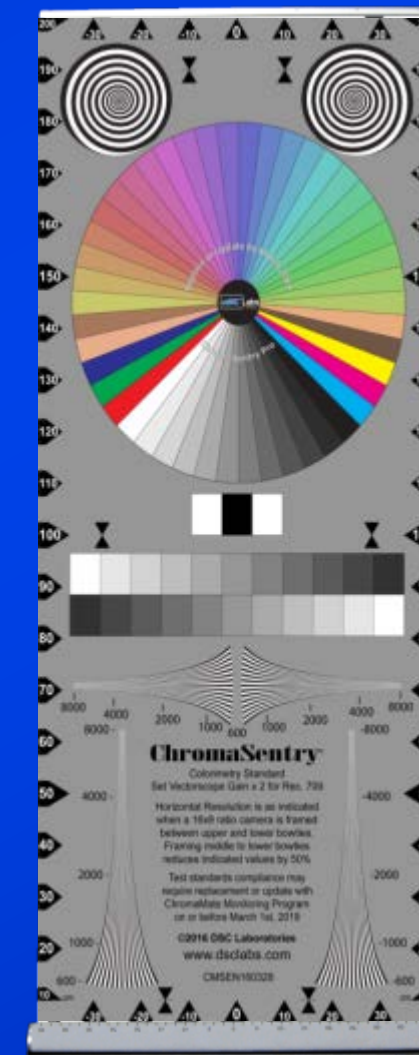


Test Category	Camera A	Camera B	Camera C	Camera D
Dynamic Range (f-stops)	8	7	7	6
Greyscale Accuracy	★ ★ ↘	★ ★ ★ ★	★ ★ ★	★ ★
Skintone Accuracy	★ ↘	★ ★ ★	★ ★	★
Colour Accuracy	★ ↘	★ ★	★ ↘	★
Resolution Hor.	★ ★ ★	★ ★ ↘	★ ★	★ ★ ★
Resolution Ver.	★ ★ ★	★ ★ ↘	★ ★ ↘	★ ★ ★ ★
Optical Distortion	★ ★ ★ ↘	★ ★ ★ ★	★ ★ ★ ★	★ ★ ★ ★
Low Light Capability	★ ★ ★ ↘	★ ★ ★ ↘	★ ★ ★	★ ★
Rating	★ ★ ↘	★ ★ ★	★ ★ ↘	★ ★

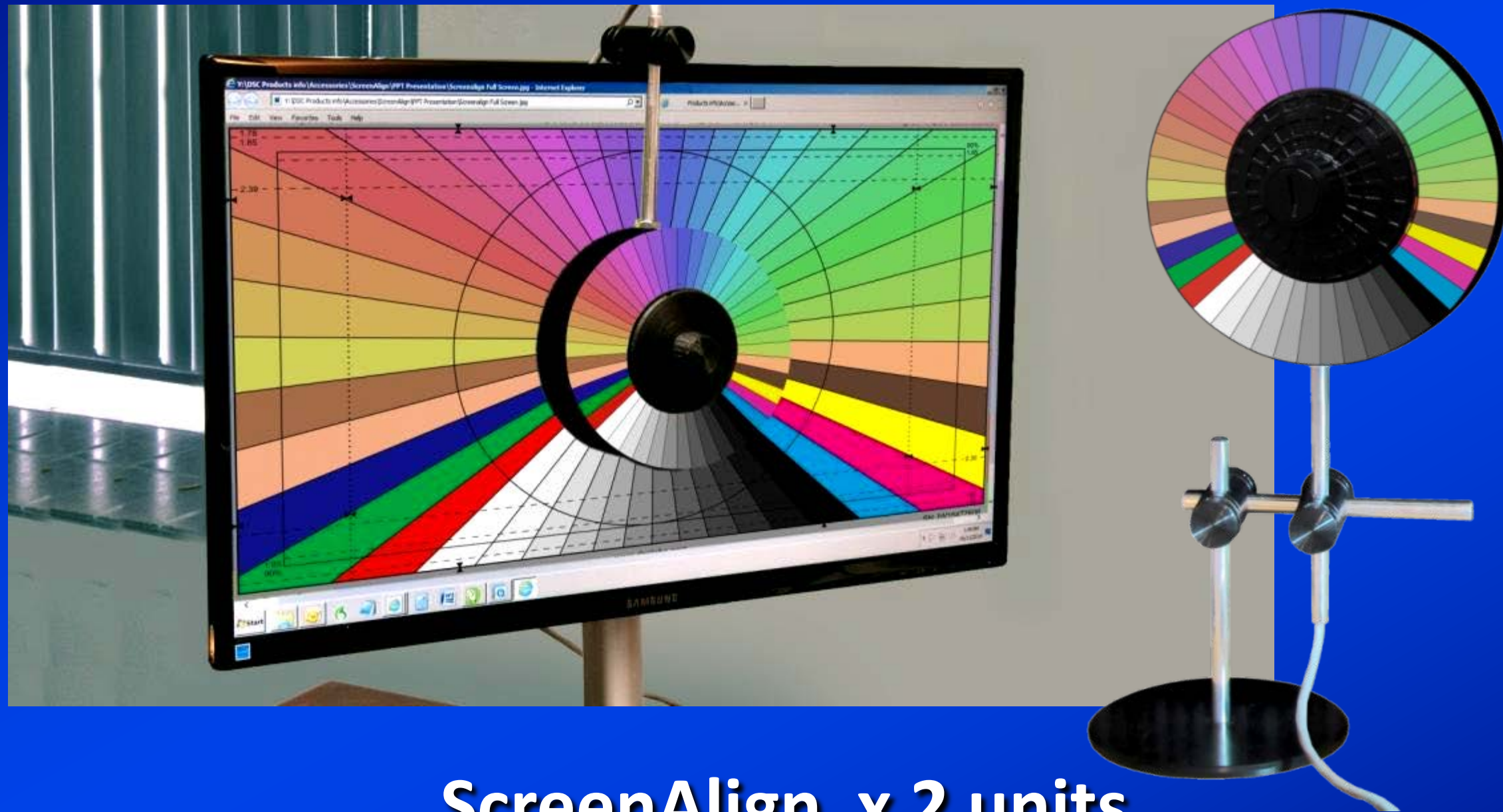
TACT Camera Evaluation x 10 units



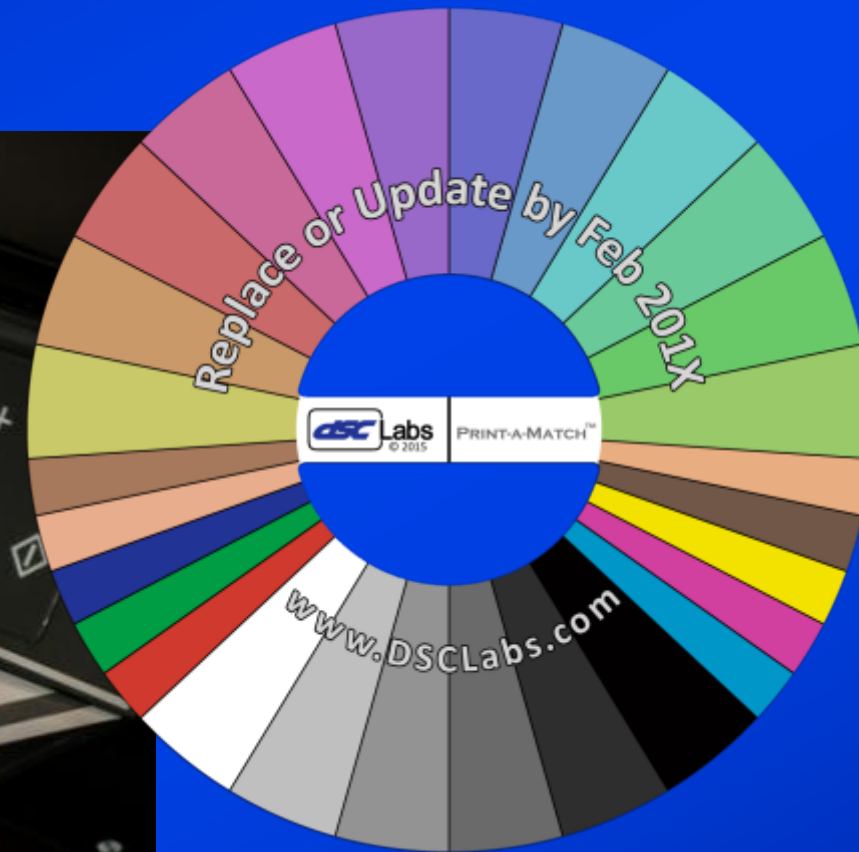
Rolichart x 5 units



ChromaSentry x 2 units



ScreenAlign x 2 units



Print-A-Match x 10 units



Chroma-Selfie x 50 units



ForensiChart x 20 units



Training at DSC or by Webinar for 1-5 Members

Let Harry and **s2s** help you put
more criminals behind bars

Please contact - dsc@dsclabs.com

Thank You

DSC Labs is a recipient of the
Canada Award for Business Excellence,
and, for its role in improving image quality, in television and motion
pictures, was awarded the coveted
Fuji Gold Medal.

For 50 years of pioneering continuous advances in image quality,
calibration and correction, in 2017 was awarded the
SMPTE Camera Origination and Imaging Medal

For additional information - please contact:
DSC Laboratories – 1-905-673-3211 – e-mail <dsc@dsclabs.com>