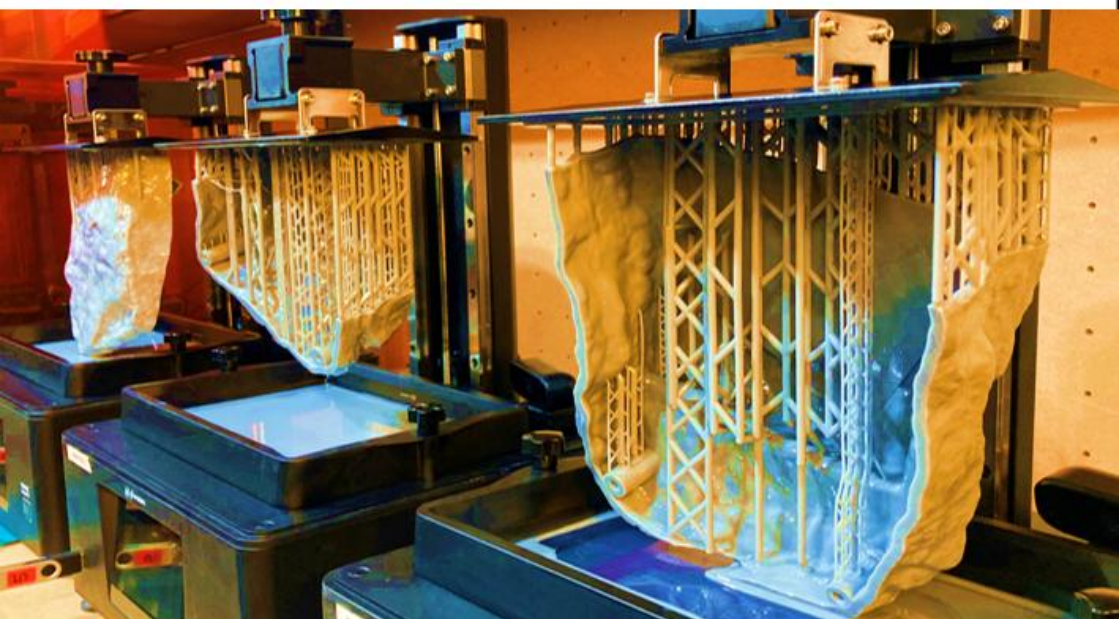




Digital Mimicry
Computer Aided Concealments

Digital Mimicry

Since 2020 the International Special Training Facility has been perfecting the art of digital mimicry, or as we like to call it 'CAD-CON' computer aided concealments.

CAD-CON is a dedicated department within the company that's sole purpose is to enhance this technique through research & development, training and operational support.

We know that technical support departments are equipped with 3d printing technologies, but we also know they are not always used to there full protentional, be this skill fade, rotation of department members, or generally because departments are being stretched to their limits.

This is where ISTF bridge the gap. We provide assistance in operational support by supplying pre-built & custom concealments direct to you from our digital library in 'ready to deploy' condition.

Support Options:

SS1: Full Service – includes

- 3D Scan & CAD of selected object
- Fabrication of precise internal brackets, fixtures and fittings
- Technical fitment as per customer specifications
- Realistic textured paint works [UV protected]

SS2: Part Service – includes

- 3D Scan & CAD of selected object
- Fabrication of precise internal brackets, fixtures and fittings
- Realistic textured paint works [UV protected]

SS3: Rapid Service - includes

- Selection from our off-the-shelf enclosures
- Realistic textured paint works [UV protected]

Our Service

We offer a complete service from start to finish with a quick turn-around to support time sensitive operations.

Contained in this brochure is a sample of our 'ready to deploy' enclosures, these can be re-sized and adapted to suit your electronic requirements.

Our fabrication cell holds CAD files on the most commonly deployed technical cameras, lenses and audio arrays from the usual trusted network of professional companies.

With a rapid turn around, we can CAD a custom enclosure to your specifications.

Once designed, we will print and if required, paint it ready for deployment.

The benefits of CAD-CON:

- Financially more cost effective than conventional methods
- No waste of expensive chemicals with expiration dates
- No redundant moulds cluttering the workshop
- No mess in the fabrication stages
- Perfect choice for expeditionary missions
- Highly customisable
- Smaller and more accurate camera apertures

Our working cycle supporting you:

- Substitution selection & preparation
- High resolution 3D scans
- Advance CAD & file recreation
- Design and placement of camera / audio housings, control hub and batteries
- High-definition resin printer technology
- Advance textured painting
- Occupation of selected technical devices



Computer Aided Concealments

Bare Resin Print



Textured First Layer



Bringing To Life



Technical Installation



Environment Test Before Deployment



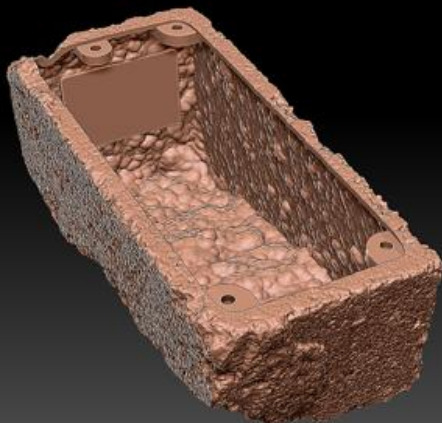
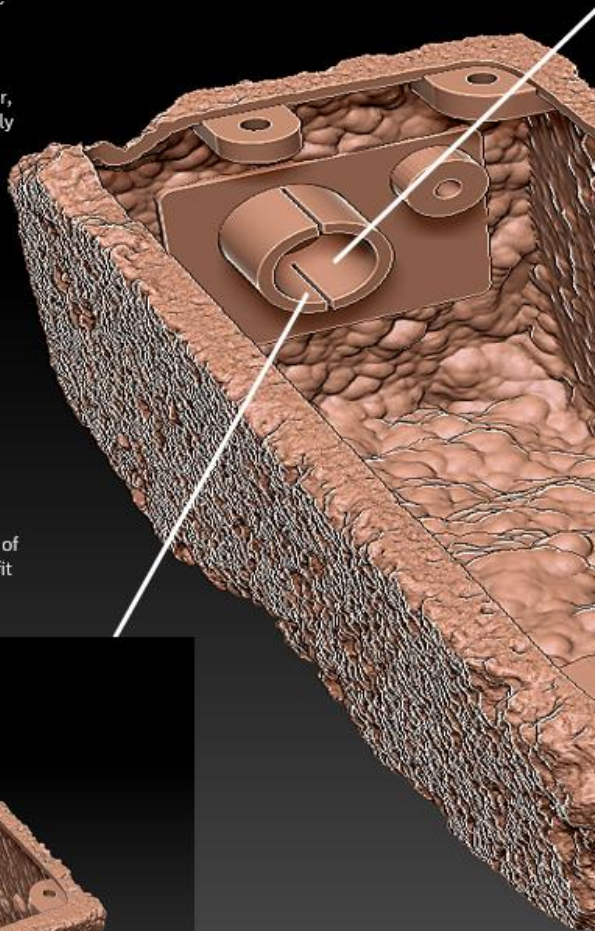
Digital Mimicry

The key advantage to digital mimicry is the ability to rapidly change internal equipment mounting positions, this is a very simple process by re-addressing the original CAD file.

It may be that mountings need to be changed to suit a different manufactures equipment, if using older mimicry techniques this would be a total re-start of the casting process, and very time consuming.

With digital production, apertures can be smaller, with stand-off distances being altered to correctly match the selected camera lens.

Below: Digital diagram showing the internal wall of the enclosure with a flat face to support a retro-fit of third-party fixtures and brackets.



Computer Aided Concealments

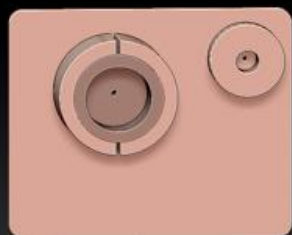
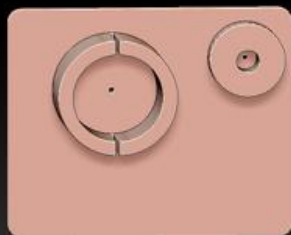
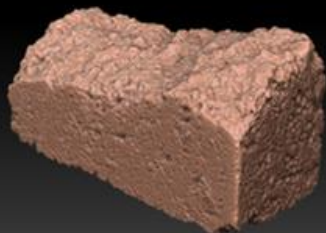
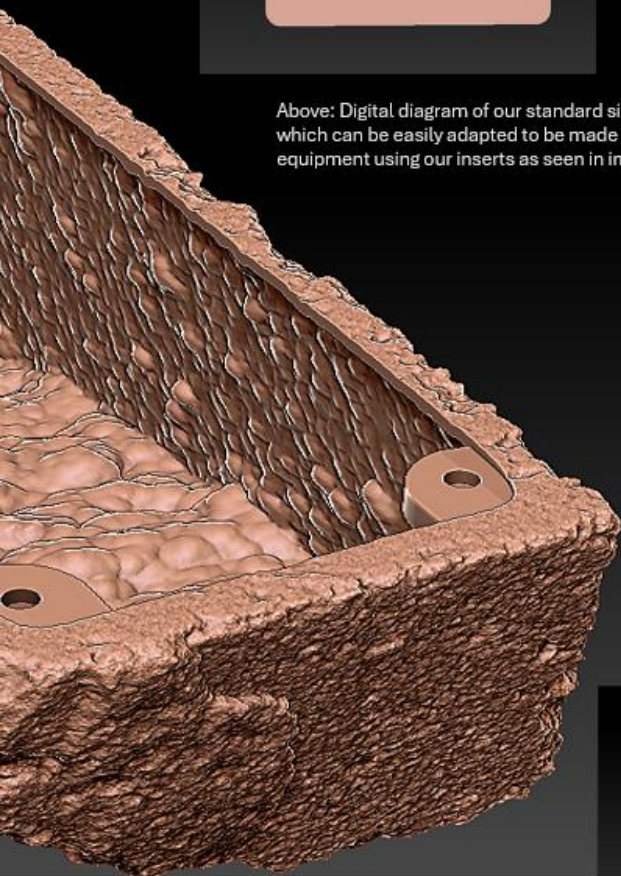
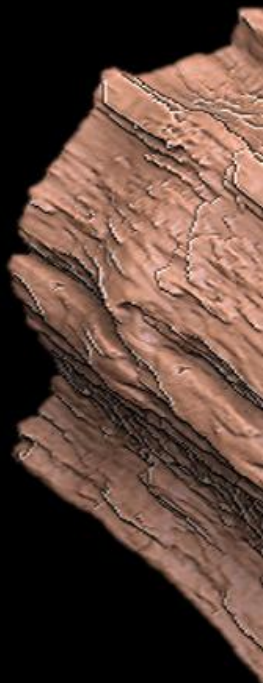
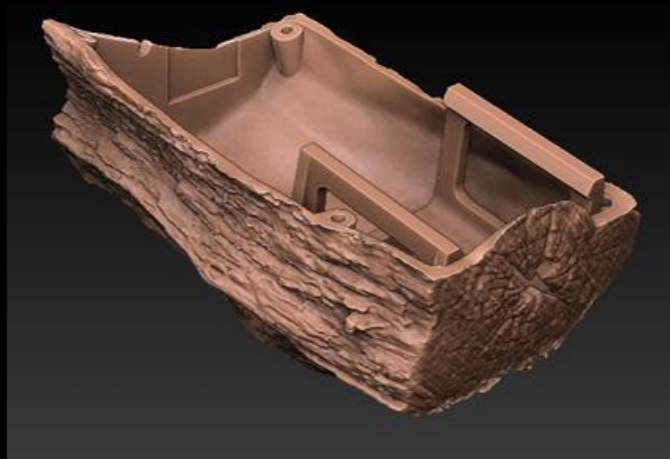


Image 2

Above: Digital diagram of our standard sized camera & microphone mounting plate which can be easily adapted to be made compatible with an array of third-party equipment using our inserts as seen in image 2.

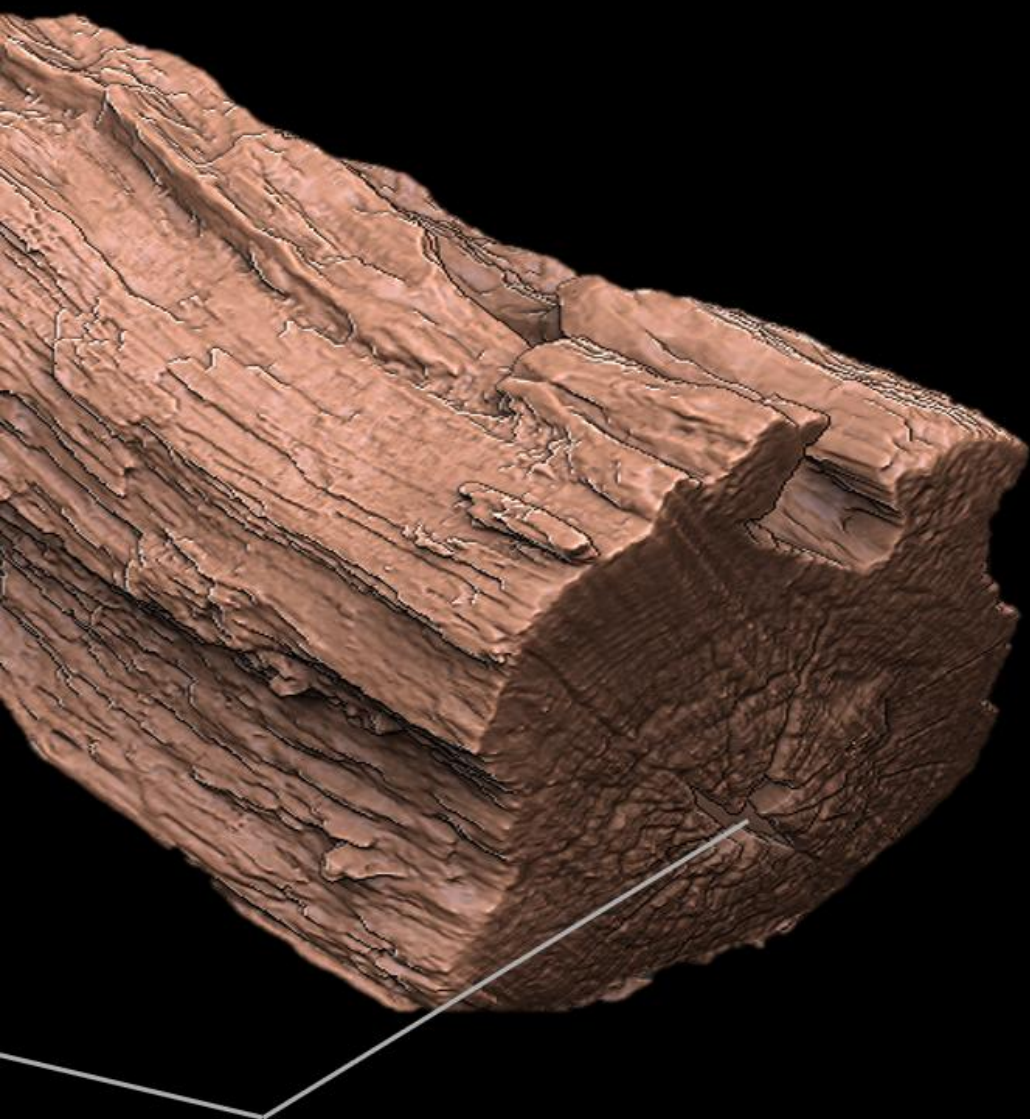


Digital Mimicry



Example: Our off the shelf large sawn log Printed, painted and designed to support the Clareys CT Pan & Tilt attachment ready to deploy.

Computer Aided Concealments



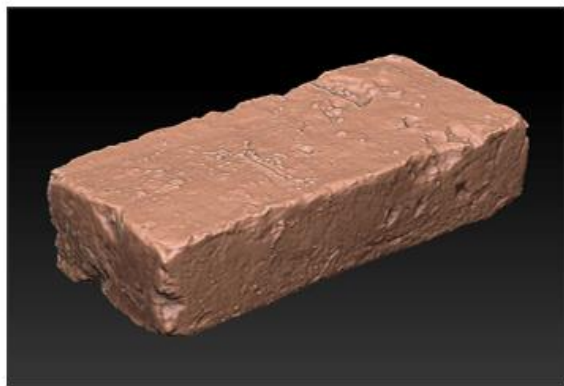
Irregular designed aperture to offer maximum arcs & field of view yet blending seamlessly into the design of the enclosure.

Digital Mimicry



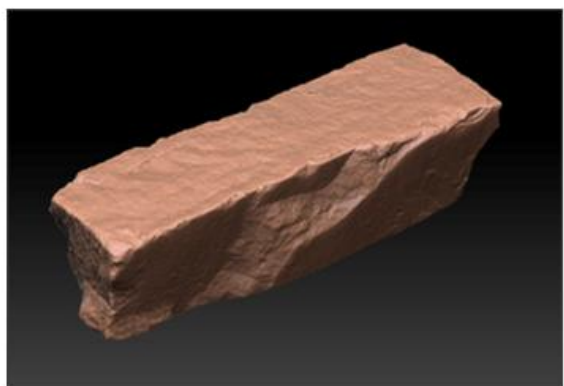
**DOMESTIC UK HOUSE BRICK
CC01**

Standard Dimensions:
233 x 73 x 112mm



**DOMESTIC EUROPEAN HOUSE
BRICK CC02**

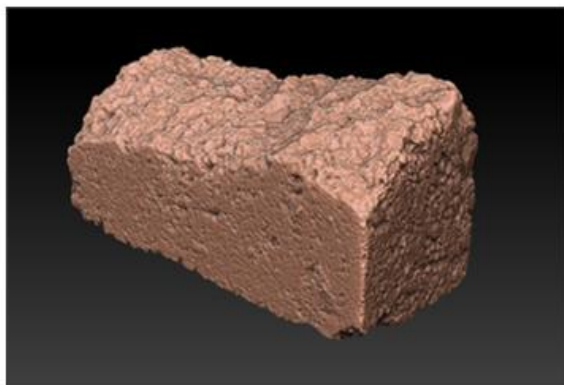
Standard Dimensions:
236 x 152 x 148mm



**CONCRETE SECTION
CC03**

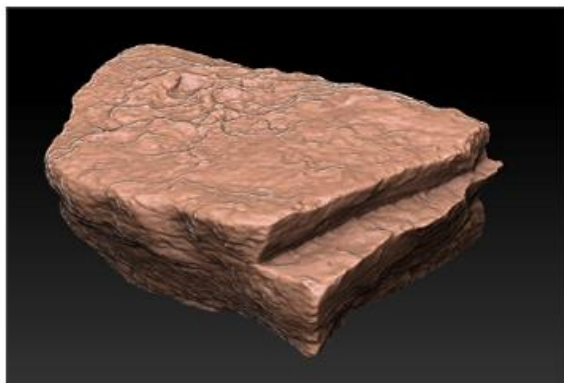
Standard Dimensions:
347 x 120 x 112mm

Computer Aided Concealments



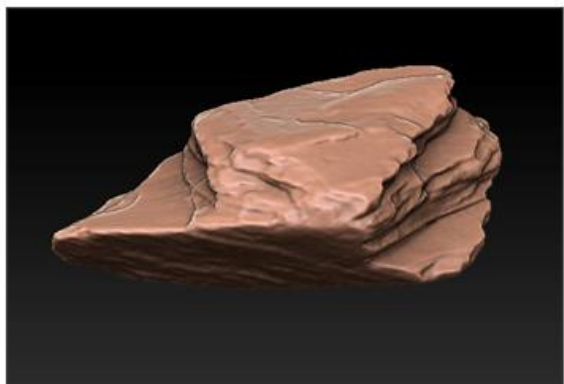
**BROKEN CINDER BLOCK
CC04**

Standard Dimensions:
233 x 73 x 112mm



**DRY STONE WALL SLIP
CC05**

Standard Dimensions:
130 x 52 x 87mm



**SLATE SECTION
CC06**

Standard Dimensions:
80 x 50 x 32mm

Digital Mimicry



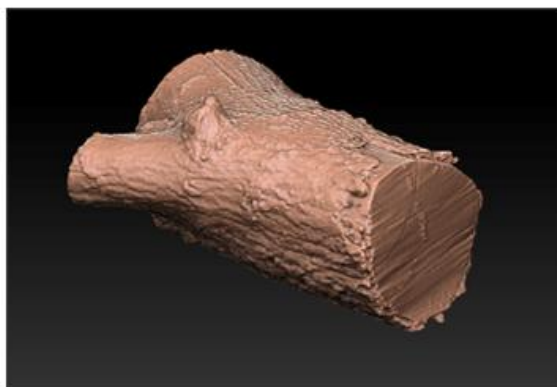
**SMOOTH BARK DEAD-FALL
CC07**

Standard Dimensions:
335 x 54 x 80mm



**ROUGH BARK / ROTTING DEAD-FULL
CC08**

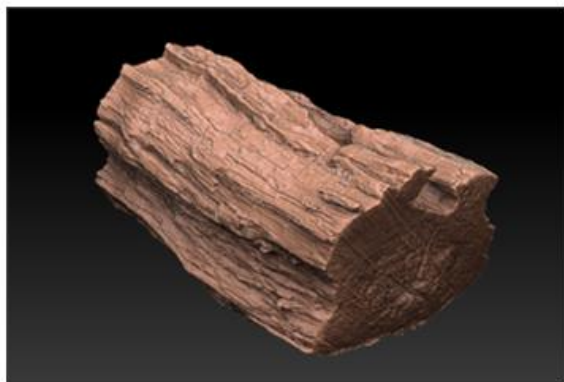
Standard Dimensions:
415 x 71 x 75mm



**SMALL SAWN LOG OFF CUT
CC09**

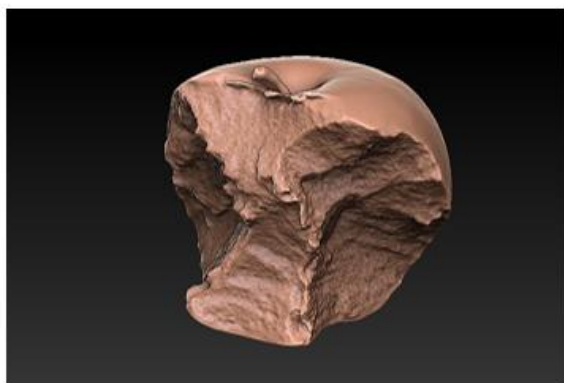
Standard Dimensions:
114 x 130 x 110mm

Computer Aided Concealments



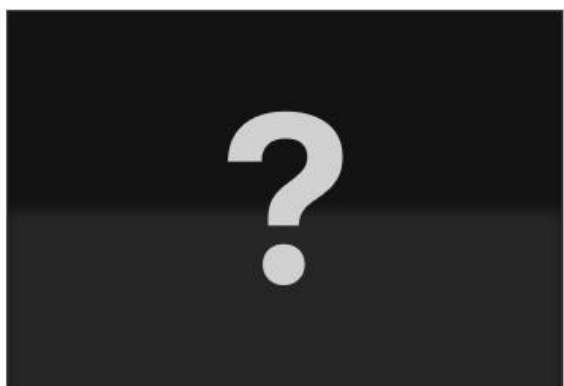
**LARGE SWAN LOG OFF CUT
CC10**

Standard Dimensions:
300 x 200 x 200mm



**ROTTEN APPLE
CC11**

Standard Dimensions:
75 x 75 x 75mm



OPERATIONALLY CUSTOMISED

If you have an operational requirement and need a bespoke enclosure creating, then contact us and we can get the printers warmed up.

Flexible Mimicry - Rapid Concealment Product

ISTF have designed the ultimate 20 Second Concealment Kit. It is exactly as it sounds.

Aiding you to conceal technical equipment in a rural setting in seconds and is a 'must have' kit for all technical support units that operate in impromptu situations.

Our flexible tree bark is designed to wrap round any object instantly transforming and blending it into its natural setting.

The panel can also be stretched around a tree trunk, fixed in position concealing equipment elevated against a tree.



STEP 1 Prepare Camera



Available barks:

- Oak
- Silver birch
- Pine
- Ash / Elm



Guaranteed to survive a 2 meter walk past when deployed correctly

IN-HOUSE PRODUCT



STEP 2 Roll Panel

STEP 3 Deploy



Digital 3D Printed Mimicry Training

The Digital 3D Printed Mimicry course is designed for those who have no prior experience in 3D printing or computer-aided design (CAD).

The training package is structured in a logical, easy to follow steps ensuring course delegates build a solid understanding of basic 3D design as the course progresses.

In this course, delegates will copy and recreate an exact 3D object using 3D scanning technology. The recreated solid scanned object is then split into two sections and later reconstructed to securely support the technical equipment that needs to be concealed inside.

Once the object is successfully printed, students are taught how to correctly paint the concealment. This includes building a depth of colour with shading, ageing, use of pigments and even incorporating live organic material while also ensuring it remains UV reflective and RF transparent.



Skills retained & returned to the unit:

- Prepare and setup a 3D printer and scanner in readiness for fabrication
- Use design software to re-create a scanned object, to securely host internal technical surveillance equipment
- Fabricate the interior of the concealment to ensure camera and audio apertures remain perfectly aligned
- Conduct various painting, texturing methods adding finer detail to the concealment
- To create libraries of 3D templates for rapid / expeditionary use where the removal and scanning of objects isn't tactically possible
- To physically fit technical audio/video equipment into the concealment and deploy to prove the operational concept



Advanced Painting & Finishing Techniques Training



The aim of our Advanced Painting & Finishing programme is to introduce specialists to professional and diverse techniques that will enhance their mimicry and concealment skills, allowing closer deployment to the target area with greater survivability.

On completion of this programme, delegates will be able to create more realistic and visually sustainable concealments. Additionally, they will have enhanced knowledge to effectively repair any surfaces that may need restoration.

Understanding how Layers of paint and finishes can affect each other, for example coating with varnish or lacquer will protect a delicate painted surface, but it can give a sheen and unnatural look. To minimise this, 3D effects and additional paint can be applied over the varnish.

Skills retained & returned to the unit:

Advanced weathering techniques

- Painting methods & techniques by combining three dimensional elements such as moss, lichens, deadfall and soils into the final finish.

Airbrushing Techniques

- Airbrush painting methods, highlighting, lowlighting
- Different types of brush and what to choose
- Air supplies, basic use, cleaning, and maintenance

Advanced Freehand painting techniques

- Shading
- Texture highlighting
- Blending new and old areas
- Rust streaks
- Masking methods



ISTF Mimicry & Fabrication Cell



**COVERT TACTICAL & TECHNICAL TRAINING
PRODUCTS AND DESIGN**

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