



KYBOS

CONSTRUCTION 3D CAPTURE

CAPABILITY STATEMENT

BUSINESS OVERVIEW

From our established base in SEQ, KYBOS continues to support businesses across Australia.



We provide accurate, 3D scanning, construction 3D capture and aerial mapping solutions that enhance safety, planning, and operational efficiency across multiple sectors.

Fully insured and customer-focused, our team delivers tailored results quickly and professionally. Whether for project management, asset monitoring, documentation, or property visualisation, we help clients improve efficiency and gain new perspectives.

With a proven track record in architecture, construction, and environmental sectors, KYBOS combines cutting-edge 3D scanning, immersive virtual solutions, and aerial mapping technology to deliver precise, reliable outcomes. Our focus on accuracy, innovation, and practical problem-solving has earned us a trusted reputation in the industry.

BUSINESS NAME
KYBOS

ABN

407 9870 1909

YEAR ESTABLISHED

2018

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MAIN SERVICE AREA

East Coast

EMAIL

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WEBSITE

www.kybos.au

MARKET SERVED

Architecture, Engineering, Construction, Planning, Governments, Industrial, Commercial, Residential Conservation

BUSINESS ACTIVITIES

3D Scanning, Scan to CAD/BIM Integration, Construction 3D Documentation, Aerial Mapping and Infrastructure Modelling, Asset Lifecycle Documentation & Management Support

OUR SERVICES

We deliver precise, tailored solutions for the **Architecture, Engineering, Construction, Planning (AEC/P)**, manufacturing and government sectors:



3D Scanning: captures highly accurate digital replicas of physical spaces, providing detailed models that enhance planning, documentation, and project management.



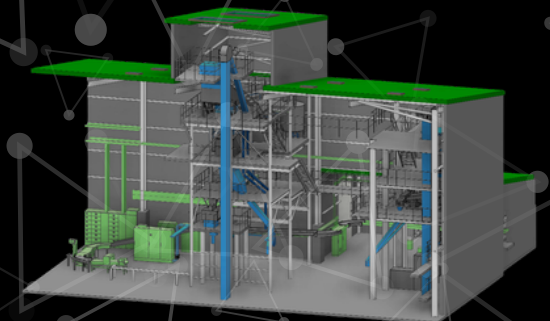
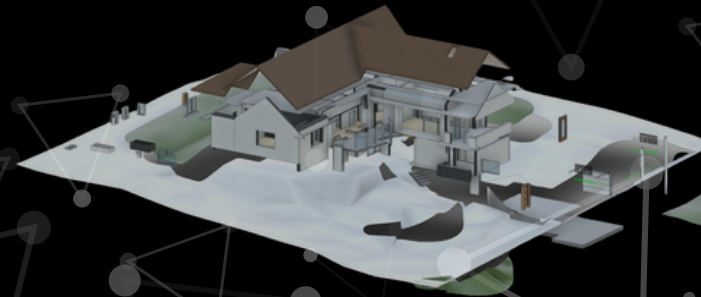
Scan-to-Design: Converts scans into BIM and CAD-compatible files, enabling accurate planning, seamless integration, and efficient project management.



Customised 3D Solutions: Develops 3D virtual assets for site orientation, induction, facility operations, safety training, and promotional content, tailored to each project's needs.



Aerial Mapping, Infrastructure Inspection: Delivers geo-referenced terrain models and infrastructure inspection imagery to support engineering assessment, compliance and asset management.



AERIAL MAPPING & INFRASTRUCTURE INSPECTION

We provide high-accuracy aerial data acquisition for construction, utilities and government assets. Our RPA operations generate geo-referenced terrain models and infrastructure inspection imagery to support engineering assessment, compliance documentation and asset management.

Capabilities include:

- Orthomosaic mapping and geo-referenced datasets
- Digital surface, elevation and contour modelling
- Volumetric and terrain analysis
- Transmission tower, utility and roof inspection
- Time-stamped visual records for compliance and maintenance

All aerial operations are conducted in accordance with CASA regulations, supported by project-specific risk assessments and safety procedures.



3D CAPTURE & THE SHIFT TO DIGITAL TWINS

Digital twins provide a comprehensive, interactive 3D model of a space that enhances decision-making and maintenance throughout a building's lifecycle.



Our 3D capture solutions are a major improvement over traditional methods, providing clients with precise, interactive models that enhance every stage of a project. By transitioning to digital twins, we offer a transformative approach that streamlines processes, reduces costs, and supports better decision-making across industries.

Cut defect-related time and costs



Provide quick trade references



Review & document current work



Support insurance claims



Improve communication and collaboration



Aid in organisational compliance



Streamline site inductions



Ensure quality assurance and safety



Facilitate offsite approvals and troubleshooting



TRADITIONAL METHODS VS DIGITAL TWINS

Challenges

95%

of all data captured in construction and engineering industry goes unused.

Source: FMI

52%

of reworks is caused by poor project data and miscommunication.

Source: Autodesk

24%

of total project cost (direct or indirect) is rework.

Source: Navigant Construction Forum

Outcomes

53%

Cost savings on travel and site visits.

30%

Less time to complete project.

24%

Improved sustainability. (by reducing unnecessary travel, rework, and site visits).

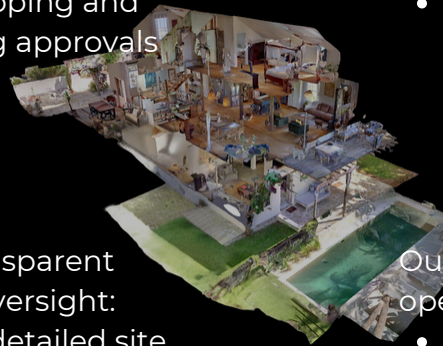
INDUSTRY-SPECIFIC APPLICATIONS



A.E.C. & Planning

Our high-precision scans support documentation and compliance at every project phase:

- **Accurate As-Builts:** Detailed models document phases like dilapidation, pre-slab, pre-plaster, and final.
- **Compliance Clarity:** Reduce RFIs and streamline remote assessments with interactive models.
- **Scan to Design:** Easily incorporate scans into CAD/BIM workflows, minimising errors and delays.
- **Aerial Site Intelligence:** High-accuracy aerial mapping and terrain modelling to support large sites, planning approvals and engineering workflows.



Governments

Our 3D site capture solutions provide a reliable, transparent way to streamline tendering and improve project oversight:

- **Pre-Tender Documentation:** 3D assets provide detailed site data for accurate pre-tender assessments, helping councils reduce site visits and minimise miscommunications.
- **Enhanced Collaboration:** Interactive, accessible models enable councils and contractors to visualise project requirements clearly, leading to more informed decision-making and streamlined tendering processes.
- **Infrastructure Inspection:** Drone-based capture of roads, parks and utility assets to support condition assessment, compliance documentation and lifecycle planning.



Asset Management

Our technology enhances property management and environmental oversight:

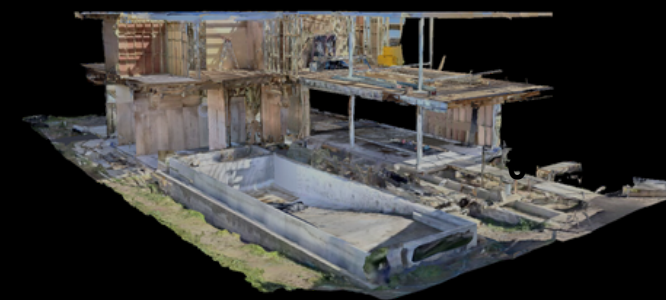
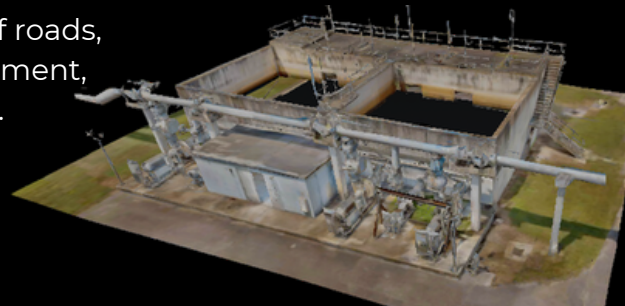
- **Property Showcasing:** Immersive 3D tours increase engagement and showcase properties in detail.
- **Maintenance Tracking:** Scans enable effective asset management and monitor changes over time.
- **Environmental Monitoring:** Capture sensitive landscapes accurately for compliance and conservation.
- **Aerial Asset Inspection:** Roof, facade and tower inspections providing safe, time-stamped visual records for maintenance planning.



Manufacturing

Our 3D site capture solutions minimise downtime and improve operational planning in complex manufacturing environments:

- **Reduce Shutdowns:** Remote planning with 3D models minimises costly on-site interventions.
- **Optimise Layouts:** Accurate scans streamline renovation planning and prevent errors.
- **Training and Retention:** Use immersive models to capture essential layout details for efficient staff training.



HOW 3D CAPTURE SUPPORTS PROJECT TEAMS



Management

Directors

Greater certainty around scope, interfaces, & installed works
Stronger audit trail and accountability across project stages

Project Managers

Faster resolution of RFIs, variations, & coordination queries
Time-stamped references easily shared across sites and teams



Delivery

Site Managers

Accurate visual references for sequencing, task locations & interfaces
Efficient trade coordination with less interruptions

Designers and Engineers

Verification of installed works against design intent
Early identification of concealed conflicts prior to close-up

Subcontractors

Clear understanding of scope and interfaces before mobilisation
Ensure cleaner first-time installations



Assurance

HSE and Safety

Review hazards and access constraints at all times
Practical evidence for inductions, incident reviews, & compliance

Quantity Surveying & Commercial Assurance

Visual access to progress verification for claims and valuations
Independent visual verification to support certification and audit requirements

Facilities, Operations, & Client Teams

Practical spatial record for training, maintenance, & future works
Reduced reliance on individual staff knowledge post-handover

CASE STUDY 1

Capturing Hidden Infrastructure with 3D Site Capture – Belongil Pre-Plaster

During the construction of a new home in Belongil, we carried out a complete 3D site capture at the pre-plaster stage. This created a detailed, measurable record of every element before walls were closed, providing long-term clarity and peace of mind for both builder and client.

- **Hidden Infrastructure:** Documented wiring, plumbing, and framing before walls were closed.
- **Quick RFIs:** Reduced queries with verifiable visual data.
- **QA & Compliance Assurance:** Provided time-stamped visual evidence to support inspections, certification, and future dispute resolution.
- **Future Asset:** Permanent record for renovations, repairs, and maintenance.
- **Remote Collaboration:** Stakeholders accessed the model online, cutting down the need for repeat site visits.
- **BIM Ready:** Point cloud and CAD integration for precise workflows.

KYBOS's pre-plaster 3D capture gave us complete confidence moving forward. Every wire, pipe, and structural detail was documented clearly, saving us from costly mistakes down the track. The process was seamless, and the outcome invaluable.



CASE STUDY 2

3D Dilapidation Record for Urban Infrastructure and Surrounding Buildings

A comprehensive 3D capture was carried out to document the condition of surrounding buildings, roads and infrastructure prior to nearby construction works.

Defects such as cracks and surface damage were tagged directly within the model, creating a clear, time-stamped record of site conditions that can be reviewed remotely by project teams.

- **Baseline Record:** Documented existing conditions before works commence
- **Defect Documentation:** Tagged observations linked to precise locations
- **Risk & Liability:** Clear visual evidence if claims or disputes arise
- **Remote Review:** Stakeholders can assess conditions without site visits
- **Long-Term Reference:** Permanent digital record of the site

Project Snapshot

- 11,000+ m² site capture
- Buildings and public infrastructure documented
- Spatially tagged defect observations



Presented by Aerial Perspectives Australia
Broadbeach Dilapidation Demo -
Asset Economics

X MENU

Language

Dilapidation Record

Buildings

- Building 1 - 5-7 Queensland Avenue
- Building 2 - 3 Federation Avenue
- Building 3 - 7 Federation Avenue
- Building 4 - 133 Old Burleigh Road

Recorded Building Damage

- Building 3 - Vertical Brickwork Crack at Joint - Moderate
- Building 1 - Crack - Moderate

Road Infrastructure

- Roadway 1 - Queensland Avenue
- Roadway 2 - Old Burleigh Road
- Roadway 3 - Federation Avenue

road 2

Recorded Roadway Damage

- Road 2 - Crack on asphalt - Minor
- Road 2 - Crack on Roundabout - Minor
- Road 2 - Roundabout Kerb & Channel Crack - Minor
- Road 2 - Kerb & Channel Spalling - Minor

Pedestrian & Access Areas

- Footpath 1 - Queensland Avenue
- Footpath 2 - Old Burleigh Road
- Footpath 3 - Federation Avenue

Search

Recorded Footpath & Driveway Damage

- Road 2 - Driveway crossover - Concrete Crack - Minor
- Road 2 - Kerb & Channel Crack - Minor

Electrical Infrastructure

Recorded Electrical Infrastructure

CASE STUDY 3

Enhancing Project Efficiency with 3D Site Capture

Using 3D capture from the project's start led to major **time and resource savings**, along with several key advantages:

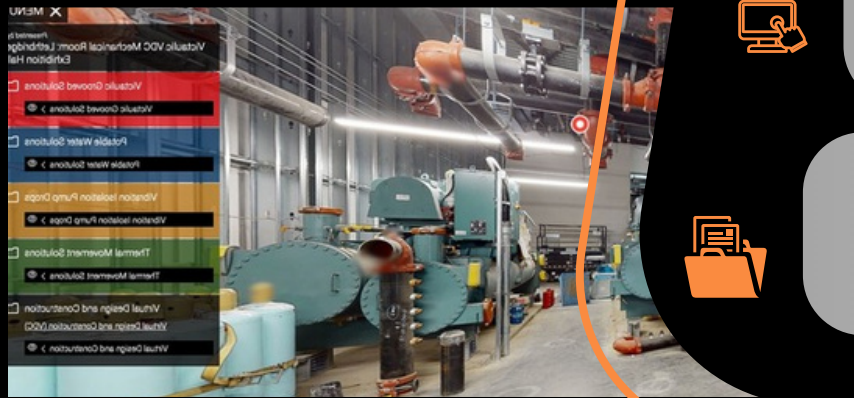
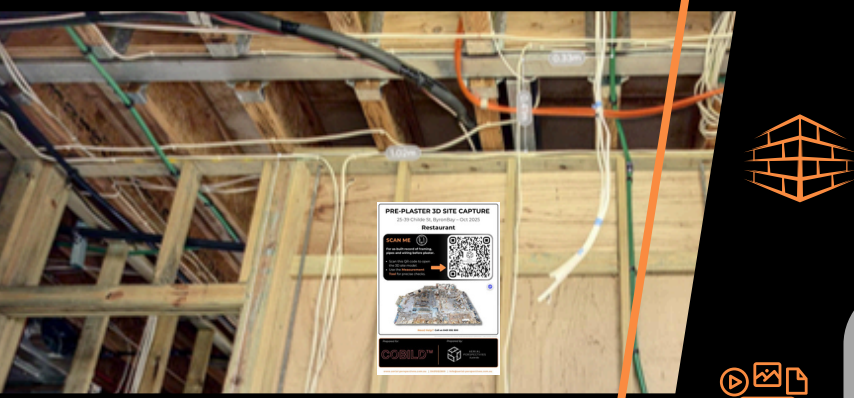
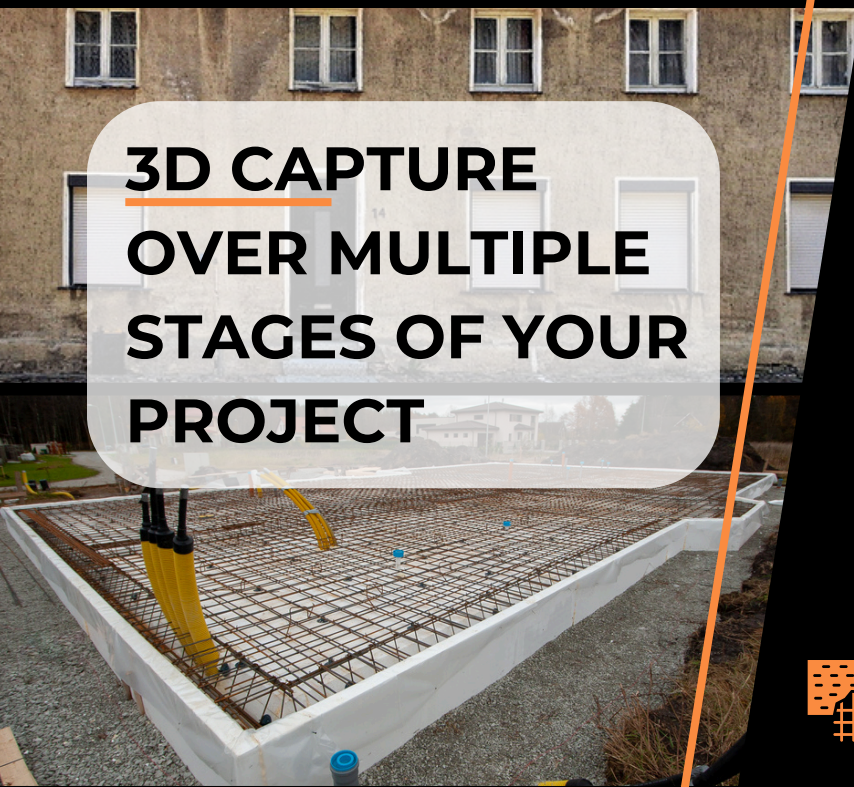
- **Invisible Infrastructure Documentation:** The digital twin captured essential pre-plaster and details, documenting wiring, plumbing, and structural elements that would later be hidden.
- **Streamlined RFIs:** Comprehensive visual records reduced Requests for Information, speeding up responses.
- **Offsite Collaboration:** Remote access to the 3D model kept all stakeholders aligned without frequent site visits.
- **Long-Term Asset Value:** Preserved as a valuable asset, the digital twin aids future upgrades and maintenance without invasive inspections.
- **Data Capture:** Provided seamless integration into BIM workflows, CAD designs, and detailed floor plans, ensuring accuracy and efficiency across all project phases.

KYBOS was truly invaluable to our project. Their 3D site capture streamlined site inductions, quality checks, and offsite collaboration, saving us a significant amount of time and money.

The team was professional, skilled, and a pleasure to work with!



3D CAPTURE OVER MULTIPLE STAGES OF YOUR PROJECT



Pre-Construction / Dilapidation



- Capture HD documentation of existing conditions to prevent rework.
- Support public protection planning and manage traffic impacts
- Measure site access and clearances to ensure safety and compliance.

Existing Conditions / Takeover



- Create high-resolution digital twin of completed works for accurate records.
- Quickly share project details with stakeholders and insurers.
- Support dispute resolution and insurance claims.

Pre-Slab



- Document in-slab elements to reduce costs from x-ray scans & invasive inspections.
- Strengthen QA with visual records of pre-pour inspections and facilitate RFIs.
- Share live as-built data with stakeholders to confirm installation compliance.

Pre-Plaster



- Verify in-wall and ceiling installations align with project specifications.
- Strengthen QA with visual records of pre-plaster inspections & accurate measurements
- Share live as-built data with stakeholders to support RFIs and confirm compliance.

Defects / Final



- Track and manage outstanding defects by milestone dates.
- Provide an interactive visual record to prevent costly rework from tenants/owners.
- Use the model for tenant move-in/move-out conditions and future construction changes.

Operations and Maintenance



- Support facilities management, renovations, and asset lifecycle tracking.
- Enhance operations with detailed records for ongoing maintenance.
- Streamline asset management throughout the facility's lifecycle.

THE PROCESS

PRE-CAPTURE CONSULTATION

We begin by assessing project requirements, taking into account site specifics, objectives, and technical needs to develop a customised 3D site capture plan tailored to ensure precision and efficiency.

THE SCANS

KYBOS offers a diverse array of capture that can be conducted at various stages throughout the project's lifecycle. These encompass:

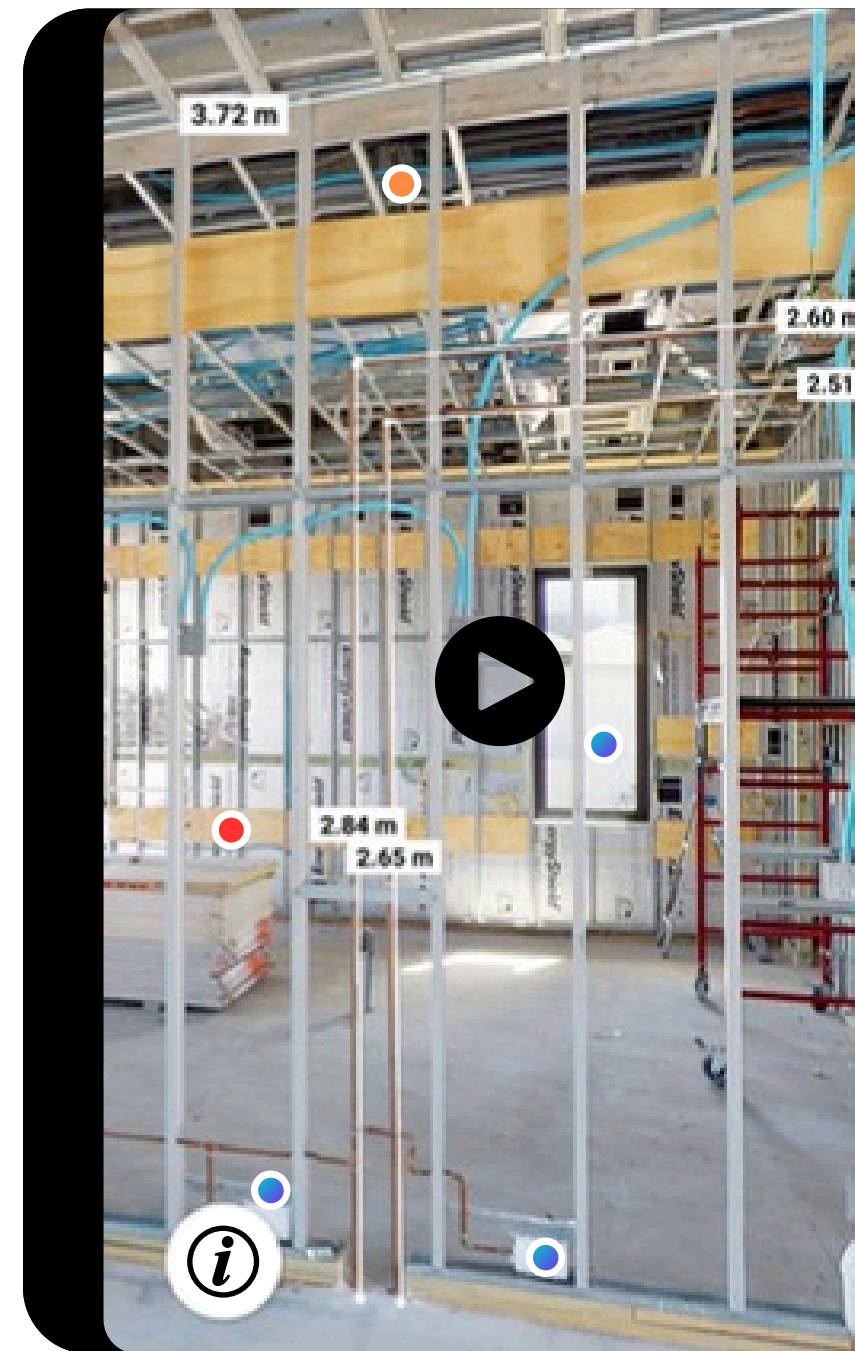
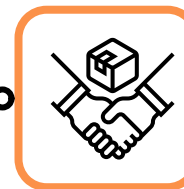
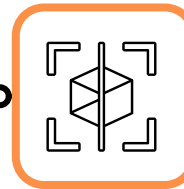
1. Pre-Construction
2. Dilapidation Scanning
3. Existing Conditions
4. Pre-Slab
5. Pre-Plaster
6. Defects and Final Assessment
7. Operation and Maintenance

THE EDIT

We compile the completed scan files obtained during the site visit into an interactive model for viewing. Additionally, we extend the option to include further features at this stage, such as customising, labelling, and incorporating additional media not taken during the initial scan.


THE HANDOVER

Once the editing process is complete, we will provide you with the finalised 3D model and accompanying documentation, accessible online. We will also print a QR code for contractors to easily access the 3D immersive model.



CONTACT US

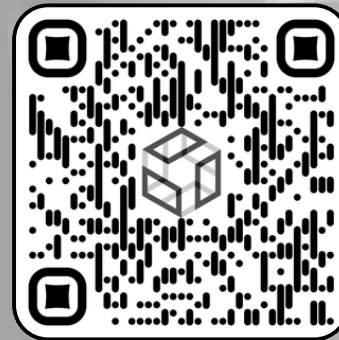
Discover How Our 3D Capture Solutions Can Transform Your Projects – Contact Us Today.

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