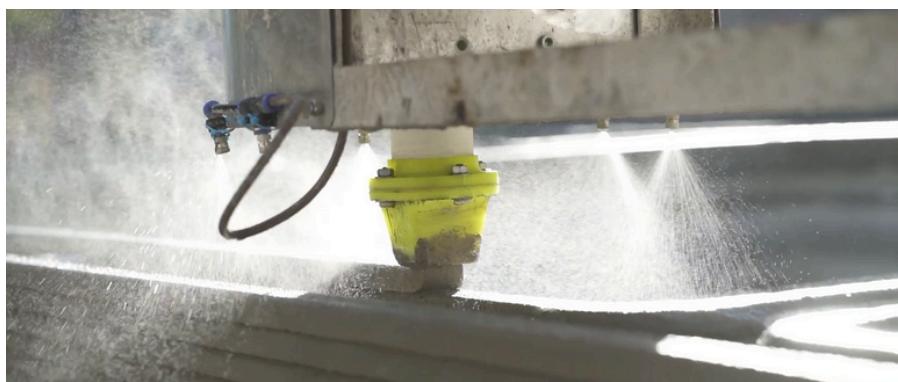




## Brief: The Journey to Build WA Better

**HOUS3D and SQ4D Industries:** Establishing Western Australia as a global leader in manufacturing cutting-edge Autonomous Robotic Construction Systems and Additive Manufacturing technologies; transforming construction methods, empowering communities, and proudly championing local manufacturing '**Made in WA**'.



Prepared for  
Key Members of the WA Government

[www.hous3d.com.au](http://www.hous3d.com.au)

Changing the way Australia is Built

HOUS3D proudly acknowledges the traditional custodians of the lands in which we live, work & visit. Acknowledging First Peoples walking gently, openly, caring for country & waters, honouring all peoples. Paying respects to those who came before us, Elders, past, present & future.



## Summary

Solving housing delivery is of major state and national interest. The issues with existing traditional and alternative construction methods are well documented and the demand for new housing has never been greater.

The need for innovation is no longer a choice—it's a necessity demanding bold thinking.

Just as A.I. is revolutionising every industry globally, construction is on the precipice of a major automated and A.I. transformation, driven by the right conditions for change. The traditional methods that once defined homebuilding can be replaced by automation, efficiency, and scalability.

HOUS3D, through our International Technology Partnership with the US based SQ4D Industries grants us access to the world's most advanced Autonomous Robotic Construction System (ARCS) using Additive Manufacturing for homebuilding, allowing us to:

- **Establish a WA based SQ4D Australia Manufacturing Facility** and support centre to produce their patented world-leading 3D construction printers and other equipment.
- **Manufacture homes on-site using additive manufacturing solutions**—faster, stronger, and more cost-effective than alternative methods.
- **Lay the foundation for an entirely new construction manufacturing industry.**

We believe this opportunity isn't only about innovation—it's also an opportunity to build a self-sufficient, open, and sustainable industry from the ground up—all **Made in WA**.

We're changing how WA builds, and also being inclusive about who gets the chance to build it.

## Who We Are

HOUS3D is a Western Australia-based construction company, drawing on decades of expertise in commercial and residential construction with a dedicated focus on innovative technology-driven solutions.

With extensive experience delivering large-scale projects, HOUS3D is committed to revolutionising the building industry by embracing advanced construction technologies, providing scalable solutions to the housing shortage crisis, and developing long-term, equitable economic and social benefits for communities statewide.

## Our Technology Partner

SQ4D Industries ([www.sq4d.com](http://www.sq4d.com)) is an internationally recognised technology provider based in the United States, leading global innovation in Autonomous Robotic Construction Systems (ARCS) and additive manufacturing. SQ4D's patented ARCS technology is a revolutionary system capable of printing entire buildings—from footings and foundations to suspended slabs and roofing—on-site with unmatched speed, safety, strength, and design flexibility.

HOUS3D has secured exclusive technology transfer rights from SQ4D for Australia, New Zealand, and Fiji, providing a unique opportunity for WA to be at the forefront of construction innovation globally.

## The Partnership

Aligned with the WA Government's strategic vision to revitalise local manufacturing and promote advanced technology adoption, SQ4D Industries has partnered with HOUS3D to establish SQ4D Australia. This venture represents a significant step in bringing critical, world-class manufacturing capabilities to Western Australia, addressing pressing housing demands and bolstering economic growth through local job creation and industry innovation.

Together we are committed to:

- **Local manufacturing** of SQ4D's Autonomous Robotic Construction System technology.
- **Accelerating adoption** of autonomous robotics use and 3D concrete printing (additive manufacturing) within the Australian building industry.
- **Create hundreds of new high-skilled, high-value jobs** in new critical technology sectors.
- **Launching the ARCS Institute**, a dedicated training facility for Autonomous Robotic Construction Systems and Additive Manufacturing for Construction.
- **Address the state housing crisis** through faster, more efficient construction processes.
- **Lead the 4th Industrial Revolution in construction** through innovative and sustainable building practices.

## Securing Best-in-Class Technology for WA

SQ4D's ARCS system is unmatched among 3D Concrete Printing Technology providers worldwide, being uniquely capable of comprehensive onsite printing of construction elements without cranes or multiple trades.

Our solutions offers:

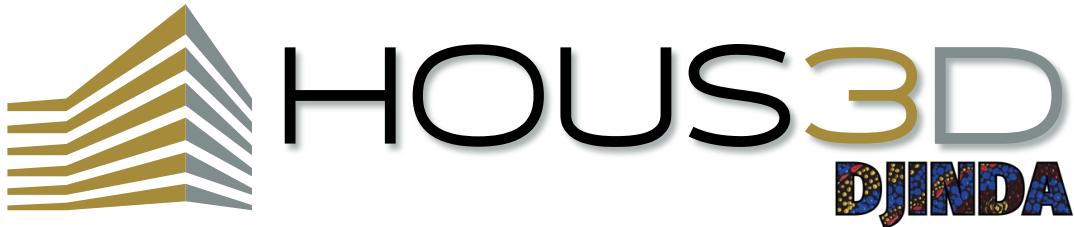
- Significantly reduced construction timelines.
- Enhanced structural integrity and sustainability.
- Greater affordability and cost efficiency.
- Vastly reduced labour requirements, mitigating skilled trade shortages.
- Exceptional flexibility in design tailored to regional and rural needs.
- Resilience to natural disasters (fire, floods, cyclones).
- Utilisation and enhancement of local supply chains.

## The ARCS Institute

The creation of the ARCS Institute, established jointly by HOUS3D and SQ4D, will be a First of its kind industry-specific educational centre exclusively focused on additive manufacturing and robotic construction technologies with a best practice around equality of opportunity. It aims to:

- **Provide comprehensive, hands-on training for industry entrants** from diverse backgrounds, including underrepresented and disadvantaged communities.
- **Set new benchmarks in training** quality, industry readiness, and employment outcomes.
- **Support the government's objectives of equitable employment** pathways and high-value skill development.
- **Promote safety, quality, innovation**, and industry best practice standards.

## Partnering for Inclusive Economic Development



**HOUS3D DJINDA** is our dedicated community building division, established to ensure genuine equality of opportunity, cultural integrity, and inclusive economic participation, essential for achieving our vision of empowered, self-sustaining communities that we build across Western Australia.

Aligned with national initiatives such as "Closing the Gap," HOUS3D is dedicated to an inclusive economic model promoting local empowerment, equity, and self-determination.

This involves:

- **Genuine partnership** and co-design with local communities.
- **Inclusive economic participation** through training and sustainable employment opportunities.
- **Empowering all communities**, First Peoples, veterans, disabled individuals, and those in the criminal justice system with structured, supportive employment pathways.
- **Promoting self determination** and community resilience through equitable economic participation and locally driven infrastructure development.

## Benefit to Western Australia

This strategic partnership will significantly advance the WA Government's economic, social, and technology agendas by:

- **Establishing a critical new advanced manufacturing industry within WA**, directly aligning with the WA Science and Technology Plan 2025-2035.
- **Creating hundreds of high-value, skilled jobs** in manufacturing, construction, and technology sectors.
- **Reducing dependency on imported technology**, bolstering economic resilience.
- **Demonstrating leadership** in sustainable, innovative housing solutions, directly addressing the housing crisis with proven, scalable methods.
- **Building community-driven economic development** through robust, inclusive employment programs and high-value career pathways.
- **Supporting statewide sustainable development** and alignment with WA's net-zero ambitions through advanced, environmentally responsible building practices.

## Potential Economic Impact

HOUS3D's partnership with SQ4D Industries offers WA an exceptional opportunity to scale housing production and stimulate substantial economic growth. Deploying our advanced ARCS technology enables faster, cost-effective, and higher-quality home construction than traditional methods, with immediate and long-term economic benefits, including:

- **Rapid and Scalable Housing Delivery:** Each ARCS printer can produce approximately 20 to 30 homes annually, offering the flexibility to swiftly scale housing production in response to market demands and policy priorities.
- **High-Value Manufacturing:** Each locally built ARCS printer injects over \$1.2M into WA's economy.
- **Job Creation:** Our model will directly create hundreds of high-value, long-term jobs in advanced manufacturing, machine operation, maintenance, and construction management, addressing skilled labour shortages.
- **Being an Economic Multiplier:** For each home built (average AUD \$400k), our approach not only injects immediate spending into regional economies but generates sustained economic activity. For instance completing 1,000 new homes annually, creates up to 380 new jobs, a construction value of \$400M, a manufacturing value of \$65M for 50 ARCS printers and annual equipment revenue of \$20M. Totalling over \$450M annually.