

Empower Construction with Intelligence,
Honor Practitioners with Dignity



Legend Robot

Global Leader in Construction Robotics R&D
and Manufacturing



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Legend Robot

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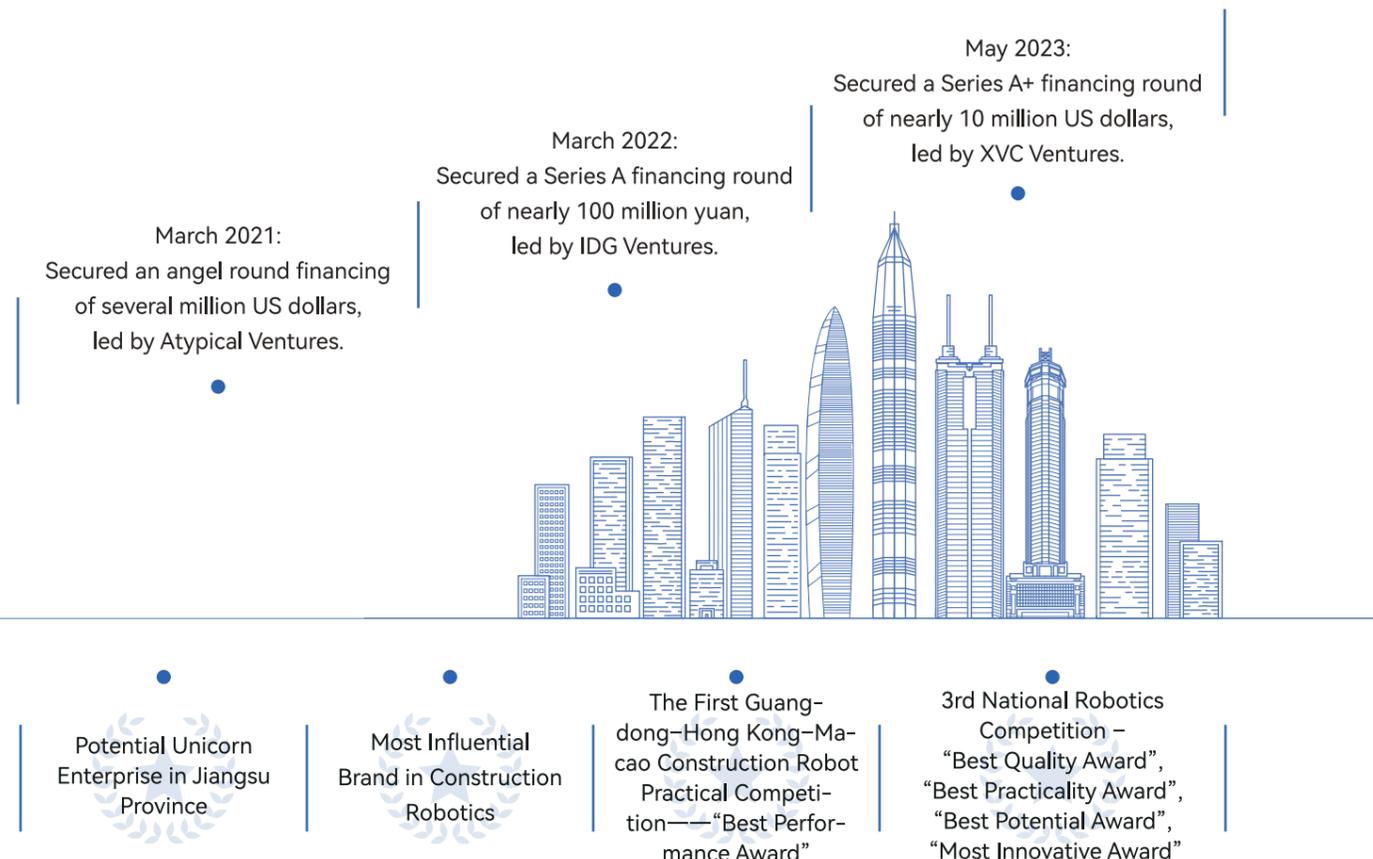
Company Profile

Founded in 2021, Legend Robot Technology is a high-tech company specializing in the R&D, and manufacturing of construction robots. The company is dedicated to driving intelligent transformation in the construction industry through smart construction equipment and digital solutions.

Legend Robot's full-chain intelligent system leverages four core modules—Perception, Decision, Execution, and Cloud Connectivity—to enable robots to perceive their environment, plan and decide with AI, execute tasks precisely, and coordinate management via the cloud platform.

Our products cover both residential and public construction scenarios. For residential projects, we offer the Latex Paint Spraying Robot (3.3m), the Putty & Latex Paint Spraying Robot (3.3m), and the Tile-Laying Robot. For public construction projects, our lineup includes the Latex Paint Spraying Robot (6.2m), the Putty & Latex Paint Spraying Robot (6.2m), and the Floor Grinding Robot.

While empowering the industry with technology, Legend Robot remains committed to honoring worker dignity and development with craftsmanship and care. Our user-friendly design lowers the barrier to operating intelligent equipment, enabling traditional construction workers to easily master robot collaboration skills. This facilitates a seamless upgrade of their professional capabilities, empowering them to adapt to future industry transformations and achieve mutual growth between individuals and the construction sector.



Legend Robot's full-chain intelligent system leverages four core modules

Perception, Decision, Execution, and Cloud Connectivity—to enable robots to perceive their environment, plan and decide with AI, execute tasks precisely, and coordinate management via the cloud platform. This improves efficiency, quality, and safety, driving the construction industry's intelligent upgrade.



Latex Paint Spraying Robot

(3.3m)

The Latex Paint Spraying Robot (3.3m) is designed for indoor painting in residential buildings, apartments, hotels, and offices. It fully automates painting on all surface features—including walls, ceilings, corners, and beams—with a coverage rate exceeding 95%.

Enabling true unmanned operation, one operator can manage up to three robots simultaneously, significantly boosting work efficiency.



| | | | |
|-------------------------|---------------------|-------------------|------------|
| Dimension | 780mm*780mm*1750mm | Weight | 590kg |
| Battery Life | 8h | Barrel Capacity | 60L |
| Spraying Width | 800mm | Spraying Speed | 0.1-0.5m/s |
| Spraying Height | 3.3m | Spraying Pressure | 15MPa |
| Operation Configuration | 1 Worker + 3 Robots | | |

Three Core Advantages

World's First Mobile Spraying Technology

Legend Robot's pioneering mobile spraying technology enables simultaneous movement and spraying, boosting efficiency by 1.5 to 2 times compared to traditional stop-and-spray methods.

Most Compact Design in the Industry

With the most compact body—measuring under 800mm in both length and width—the robot meets global construction site access standards. Featuring a proprietary omnidirectional chassis with zero turning radius, it easily navigates narrow spaces for 100% site accessibility.

Long-lasting Battery Life

Up to 8 hours of continuous operation without battery swapping, supporting full-day work on a single charge.

Six Key Features

- Superior Spraying Quality**
Our latex paint spraying robot leverages precise perception, decision, and execution technologies to deliver consistent single-pass coat thickness of $70\mu\text{m} \pm 5\mu\text{m}$, outperforming manual application and competing products.
- 95+% Coverage Rate**
With the industry's most compact body and a proprietary omnidirectional chassis featuring zero turning radius, gap-crossing, ramp climbing, and obstacle negotiation, the robot easily navigates narrow and complex spaces for broad site accessibility. Equipped with a 6-DOF robotic arm, lifting mechanism, and mature spraying algorithms, it flexibly adjusts spray angles to simulate human motion—delivering fully automatic, blind-spot-free spraying of walls, ceilings, and corners.
- High Spraying Efficiency**
Powered by Legend Robot's pioneering mobile spraying technology, our reliable system surpasses the efficiency limits of traditional stationary methods, enabling smooth and highly efficient construction.
- Proven Safety**
Since deployment, no safety incidents have occurred. The robot features dual active and passive safety systems, providing comprehensive protection for worry-free operation.
- Easy to Use**
One-touch tablet control with an intuitive visual UI requires no programming skills. Ordinary workers can run independently after basic training. Built-in standardized spraying programs enable quick start-up, eliminating complex manual adjustments and errors.
- Low Failure Rate**
With an average of just 0.33 failures per unit per month—only one-fifth of the industry average—our robots are stable and reliable. Legend Robot offers a dedicated professional after-sales team for timely support and guaranteed service.

Putty Spraying Robot

(3.3m)

Putty & Latex Paint Spraying Robot (3.3m) is designed for indoor painting in residential buildings, apartments, hotels, and offices. It fully automates painting on all surface features, including walls, ceilings, corners, and beams. One robot, two functions — enabling fast, seamless spraying of both putty and paint, achieving a comprehensive coverage rate of over 80%.

To boost efficiency without compromising quality, the robot operates in a human-robot collaboration mode: one robot works with two workers — one for system operation and one for scraping.



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|-------------------------|--|-------------------|------------|
| Dimension | 780mm*780mm*1750mm | Weight | 620kg |
| Battery Life | 4h | Barrel Capacity | 60L |
| Spraying Width | 800mm | Spraying Speed | 0.1-0.5m/s |
| Spraying Height | 3.3m | Spraying Pressure | 25MPa |
| Operation Configuration | 1 Robot+2 Workers (one for operation, one for putty scraping) | | |

Four Core Advantages

World's First Mobile Spraying Technology

Legend Robot's pioneering mobile spraying technology enables simultaneous movement and spraying, boosting efficiency by 1.5 to 2 times compared to traditional stop-and-spray methods.

Most Compact Design in the Industry

With the most compact body—measuring under 800mm in both length and width—the robot meets global construction site access standards. Featuring a proprietary omnidirectional chassis with zero turning radius, it easily navigates narrow spaces for 100% site accessibility.

Proprietary Dedicated Putty Mixer

Equipped with a dedicated putty mixer, the system ensures fine and consistent putty texture through one grinding and two-stage filtration, significantly reducing the robot's failure rate. It can prepare 60L of putty within 5 minutes—enough to supply two robots simultaneously—delivering outstanding production efficiency.

Built-in Filtration System

The robot features an integrated putty filtration system. Before spraying, the putty undergoes a three-stage filtration process, which greatly reduces the risk of clogging and mechanical failure.

Six Key Features

- Superior Spraying Quality**
The first coat of putty is sprayed at a thickness of 1.2-1.5 mm, and the second coat at 0.6-0.9 mm. Spraying thickness is precisely controlled, ensuring high flatness and a smooth, even finish.
- Sufficient Coverage Rate**
With the industry's most compact body and a proprietary omnidirectional chassis featuring zero turning radius, gap-crossing, ramp climbing, and obstacle negotiation, the robot easily navigates narrow and complex spaces for broad site accessibility. Equipped with a 6-DOF robotic arm, lifting mechanism, and mature spraying algorithms, it flexibly adjusts spray angles to simulate human motion—delivering fully automatic, blind-spot-free spraying of walls, ceilings, and corners.
- High Spraying Efficiency**
Powered by Legend Robot's pioneering mobile spraying technology, our reliable system surpasses the efficiency limits of traditional stationary methods, enabling smooth and highly efficient construction. The first coat of putty—500-600m² per day, The second coat of putty—800-1000m² per day.
- Proven Safety**
Since deployment, no safety incidents have occurred. The robot features dual active and passive safety systems, providing comprehensive protection for worry-free operation.
- Easy to Use**
One-touch tablet control with an intuitive visual UI requires no programming skills. Ordinary workers can independently run the robot after basic training. Built-in standardized spraying programs enable quick start-up, eliminating complex manual adjustments and errors.
- Low Failure Rate**
Thanks to the combined effect of the robot's built-in filtration system and the dedicated mixer, the risk of failure is significantly reduced, ensuring stable and reliable performance. Legend Robot also offers a professional after-sales support that provides prompt response and reliable service.

Latex Paint Spraying Robot

(6.2m)

Latex paint spraying robot (6.2m) is suitable for indoor painting in public buildings such as industrial plants, hotels, schools, and hospitals. It can perform fully automated painting on all feature surfaces including walls, ceilings, inside and outside corners, and beams, achieving a comprehensive coverage rate of over 95%.

The robot enables fully unmanned, automatic painting operations.



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| Dimension | 1450mm*780mm*1750mm | Weight | 950kg |
| Battery Life | 12h | Barrel Capacity | 100L |
| Spraying Width | 800mm | Spraying Speed | 0.1-0.5m/s |
| Spraying Height | 6.2m | Spraying Pressure | 25MPa |
| Operation Configuration | 1 Worker + 2 Robots | | |

Three Core Advantages

Compact Body

The smallest body in the industry (single side < 800mm), equipped with an omnidirectional chassis with zero turning radius, allowing access to building spaces that comply with worldwide construction standards.

Telescopic outrigger— Flexible and Reliable

Telescopic support legs: compact and portable when retracted, easily passing through narrow spaces and convenient for transport; stable and secure when extended, ensuring safe and steady operation during extra-high spraying tasks.

Long-Lasting Battery Life

Up to 12 hours of continuous operation.

Six Key Features

- Superior Spraying Quality**
Delivers uniform and high-quality spraying. A single coat achieves a thickness of $70\mu\text{m} \pm 5\mu\text{m}$ — outperforming manual work and similar products in the market.
- High Coverage Capability**
With a compact body and omnidirectional chassis, the robot is able to enter complex construction environments and narrow spaces, ensuring excellent scene adaptability. Equipped with a 6-DOF robotic arm, lift mechanism, and AI-powered algorithms, it simulates all human spraying motions, enabling fully automated spraying of walls, ceilings, corners, beams, and other feature surfaces.
- High Spraying Efficiency**
The robot achieves an exceptional spraying efficiency of 2,400–3,000 m² per day.
- High Safety**
Since deployment, there have been zero safety incidents. The robot is equipped with both active and passive safety systems, offering dual-layer protection and peace of mind during operation.
- Easy to Use**
One-click control via tablet with an intuitive, visualized UI—no programming skills required. Ordinary workers can run the robot independently after basic training. Built-in standardized spraying programs allow quick job startup, eliminating the complexity and errors of manual parameter tuning.
- Low Failure Rate**
With an average of just 0.33 failures per unit per month—only one-fifth of the industry average—the robot is highly stable and dependable. Legend Robot provides a professional after-sales service team for timely support and reliable maintenance.

Putty Spraying Robot

(6.2m)

Putty & Latex Paint Spraying Robot (6.2m) is suitable for indoor painting in public buildings such as industrial plants, hotels, schools, and hospitals. It can perform fully automated painting on all feature surfaces including walls, ceilings, inside and outside corners, and beams. One robot, two functions — enabling fast, seamless spraying of both putty and paint.achieving a comprehensive coverage rate of over 80%.



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|-------------------------|---|-------------------|------------|
| Dimension | 1450mm*780mm*1750mm | Weight | 1000kg |
| Battery Life | 8h | Barrel Capacity | 100L |
| Spraying Width | 800mm | Spraying Speed | 0.1-0.5m/s |
| Spraying Height | 6.2m | Spraying Pressure | 25MPa |
| Operation Configuration | 1 Robot + 2 Workers (One for operation, the other for scraping) | | |

Five Core Advantages

Ultra-Compact Design

Industry-first ultra-thin body (single side < 800mm), equipped with an omnidirectional mobility platform, delivering zero-turn-radius maneuverability. Effortlessly navigates narrow corridors in internationally standardized building spaces.

Intelligent Adjustable Support System

Innovative Telescopic outrigger design: stays compact in retracted mode for efficient passage through tight spaces; when deployed, forms a four-point stable base to ensure safety during high-altitude spraying.

Long-Lasting Power Solution

Up to 8 hours of continuous operation on a single charge-sufficient for full-day high-intensity tasks.

Smart & High-Power Putty Mixer

The dedicated high-efficiency putty mixer adopts a "one-grind, dual-filter" process to ensure putty material is smooth and free of particles.

Triple-Stage Filtration Technology

Built-in patented progressive filtration system performs three-stage purification before spraying, effectively eliminating impurities for a clean and consistent spray finish.

Six Key Features

- Exceptional Spraying Quality**
Delivers smooth and consistent coat. The first coat of putty is applied at 1.2–1.5mm thickness, and the second coat at 0.6–0.9mm—surpassing manual work quality and outperforming comparable products in the industry.
- Full Scene Coverage**
With the industry's most compact body (single side < 800mm) and a self-developed omnidirectional chassis, the robot easily enters narrow spaces and adapts to complex construction environments. Combined with a 6-DOF robotic arm, intelligent lift system, and AI-powered algorithms, it accurately simulates human motions, enabling seamless automated spraying on walls, ceilings, inside/outside corners, beams, and more—ensuring complete, dead-zone-free coverage.
- High-Efficiency Smart Operation**
Spraying efficiency is outstanding: First coat: 1,000–1,200m²/day; Second coat: 1,600–2,000m²/day.
- Multiple Safety Mechanisms**
Equipped with both active and passive safety systems, the robot performs real-time monitoring throughout operation to ensure zero safety incidents. Since entering the market, it has maintained a 100% accident-free record.
- Simplified Smart Operation**
Tablet-based one-click control with an intuitive visual UI —no programming skills required. Ordinary workers can independently run the robot after basic training. Built-in standardized spraying presets enable quick job start and eliminate manual parameter tuning errors, greatly lowering the usage threshold.
- Ultra-Low Failure Rate with Worry-Free Support**
The robot delivers stable and reliable performance, backed by a professional technical team that ensures fast response and comprehensive support throughout the product's lifecycle.

The Tile Laying Robot

The tile-laying robot is suitable for indoor tiling work in residential buildings, apartments, hotels, office buildings, and similar settings. It enables fully automated tile installation on floors.

The robot operates in a human-robot collaboration mode, where it handles large-area tiling with precision and efficiency, while workers take care of detailed work along edges and corners for greater flexibility and finesse.



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| Dimension | 960 x780x1750mm | Weight | 600kg |
| Battery Life | 4h | Barrel Capacity | 60L (Adhesive) & 5pcs (Tiles) |
| Suitable Tile Size | 800*800/600*600mm | Payload | 20kg (Max) |
| Operation Configuration | 1 Robot+2 Workers (one for operation and one for material supply) | | |

Four Core Advantages

Same-Direction Tiling — Leading Technology

Utilizes a same-direction pick-and-place method, where the robotic arm always moves in the same direction as the working surface. This eliminates the need for rotary arm movement, allowing the robot to operate efficiently in narrow spaces with strong adaptability.

Ultra-Compact Design — Flexible Operation

Among the most compact in its class, with a width of less than 1000 mm and a depth of less than 800 mm. It can easily access most rooms and elevators that comply with building standards.

Millimeter-Level Visual Alignment — Precise Tile Placement with 40kg SCARA

Equipped with a vision adjustment system based on deep learning, the robot calculates the relative position between tiles in real time. This ensures grout joint errors stay within ±0.1 mm and flatness deviation within 1 mm.

Even Adhesive Application — Prevents Hollowing

An advanced control system using multi-sensor fusion enables precise control over the adhesive spread and pattern. This significantly reduces the risk of hollow tiles and creates optimal conditions for maintaining tile flatness.

Six Key Features

- Superior Tiling Quality**
Powered by a semi-supervised learning model trained on real-world construction data, the robot continuously optimizes tile-laying quality, coverage, and efficiency. It ensures grout joint accuracy within ±0.1 mm and flatness deviation within 1 mm, meeting high construction standards.
- Sufficient Coverage Capability**
With the most compact footprint among similar products and a same-direction tile gripping and laying system, the robotic arm operates without rotational motion, enabling work in narrow spaces and achieving excellent coverage.
- High Tiling Efficiency**
Specialized in large-area tiling, the robot can lay 80–120 standard tiles per day (approximately 5 tiles every 10 minutes). A single unit achieves the daily output equivalent to 6–8 skilled workers.
- High Safety**
Since deployment, there have been zero safety incidents. The robot is equipped with both active and passive safety systems, providing dual-layer protection for worry-free operation.
- Ease to Use**
Operated via a tablet with one-click control, no coding skills are required. Ordinary workers can independently run the robot after basic training.
- Low Failure Rate**
The robot is built for stable, durable performance with minimal maintenance required.

The Floor Grinding Robot

The Floor Grinding Robot is designed for automated floor treatment in scenarios such as underground parking garages, factory workshops, laboratories, and sports venues. It supports fully automated grinding and dust collection for concrete hardener floor, Dry Shake Hardener Floor, and epoxy floor construction.

Operational efficiency ranges from 800–1,000m²/day for initial grinding to 3,000–4,000m²/day for polishing.

Truly Unmanned Construction, Enables intelligent, fully automated floor grinding operations.



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|-------------------------|---------------------|---------------------|------------|
| Dimension | 2450mm*960mm*1750mm | Weight | 1250kg |
| Power Supply | Plug-in work | Dust Collection Bin | 100L |
| Grinding Width | 780mm | Grinding Speed | 0.1–0.5m/s |
| Working Voltage | AC380V | Rotated Power | 25kw |
| Operation Configuration | 1 Robot+1 Worker | | |

Three Core Advantages

Dust Collection System

Equipped with an automatic dust collection system, featuring a 100L high-capacity dust bin to hold more debris and reduce replacement frequency. The quick-release mechanism allows for one-button loading and unloading, making maintenance fast and easy.

Preloaded Downforce Design

Utilizes a heavy self-weight and preloaded downforce design to minimize gaps between contact surfaces, enhance structural rigidity, and improve overall system stability and reliability—resulting in better grinding quality.

Compatible Grinding Discs

Supports quick-swap interfaces for both square and round grinding discs, offering greater versatility across different application scenarios.

Six Key Features

- Superior Grinding Quality**
Thanks to the robot's heavy self-weight and preloaded downforce design, rigidity is enhanced, and structural stability and reliability are improved—resulting in consistently high grinding quality.
- High Coverage Rate**
The robot autonomously analyzes the environment and plans optimal grinding paths. It intelligently detects features like columns and fire hydrants, using a wraparound grinding strategy that ensures precise coverage with no over-grinding or missed spots. Coverage rate exceeds 95%.
- High Grinding Efficiency**
Combining a large grinding disc with long battery life, the robot achieves an efficiency of 800–1,000m²/day for initial grinding and 3,000–4,000m²/day for polishing. Equipped with an automated dust collection and quick-release system, it offers high performance with excellent environmental protection.
- Comprehensive Safety System**
Equipped with an intelligent dual-protection system (active alerts + passive safeguards), the robot continuously monitors operational status to ensure zero-risk performance. It has maintained a flawless safety record since launch.
- Intelligent & User-Friendly Operation**
Controlled via a tablet with a visualized UI, the system is intuitive and easy to operate. Ordinary workers can become proficient after training.
- Ultra-Low Failure Rate & Worry-Free support**
The robot is highly reliable and stable in operation, backed by a responsive professional support team that ensures quick assistance and full-service coverage.

A FULL-LIFE CYCLE ONE-STOP SOLUTION



R&D Innovation System

Driving change through innovation, reshaping the future with technology!

- 1.High Efficient Management
2. Top R&D Team
3. Real-World Test Lab
- 4.Collaborative Innovation
- 5.Strong IP Protection
- 6.Proven Project Experience
- 7.Customer-Driven Improvement
- 8.Continuous Investment



Intelligent Manufacturing System

Empowering efficient construction through smart production, leading the industry with outstanding quality!

As an innovation leader in the construction robotics industry, we have built an intelligent manufacturing system—from R&D and prototyping to mass production and field validation—supporting global smart site upgrades with high-efficiency capacity.

1. Scalable Intelligent Manufacturing
2. Quality Control System
3. Scenario-Driven Manufacturing Innovation



Standardized Training and Delivery System

Ensuring seamless handover from training to delivery with a robust standardized system, so every step stands up to scrutiny!

1. Comprehensive Training Framework
2. Stepwise Certification Courses
3. Strict Delivery Quality Control



Full-Cycle After-Sales System

Empowering after-sales service with smart technology to ensure stable equipment operation and peace of mind for customers.

We have established a comprehensive support system combining rapid response, intelligent prevention, and continuous optimization to guarantee stable performance throughout the equipment's lifecycle.

1. Rapid Response Mechanism
2. Intelligent Operations Platform
3. Continuous Service Improvement

Domestic Partners



Domestic Project Cases (Partial)



Overseas Partners



Overseas Project Cases (Partial)

