




Australian Government  
Australian Research Council

ARC Industrial Transformation Research Hub for  
**Human-Robot Teaming for Sustainable  
and Resilient Construction**



Human and Robot Teaming in Construction

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**Vision:** to advance human-centric intelligent robotics technologies that foster seamless collaboration between humans and robots.

**Mission:** to transform work practices, improve health and safety, promote workforce diversity and longevity, and boost productivity—ultimately strengthening the resilience of the construction industry and driving sustainable development.

**Human-Robot Teaming (HRT)**

- To harness both human expertise and robotic capabilities
- To foster seamless collaboration between humans and robots
- To enable robots working alongside people as true partners, not independently of them



**Challenges in Construction**

- Severe Labour Shortages
- Workplace Health and Safety Risks
- High Environmental Impact
- Low Productivity



**Our Solution**

- AI enabled human-centric intelligent robotics
- Seamless human-robot collaboration
- Interdisciplinary themes: *Technology, People, Business, and Quality.*
- 14 Research Programs and 13 Application Programs
- Strong industry–university partnerships
- Translation of research into real-world industry solutions



**Example Projects**



HRT for Painting



HRT for Installing Screws



HRT for Tiling

**Industry Partners**



**University Partners**



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