

MAKING LIFTING OPERATIONS SAFER FOR PERSONNEL

The TENSA **ROBORIGGER** is an automated lifting device which uses gyroscopic and inertial forces to accurately rotate and orient loads. No taglines are needed. **ROBORIGGER** was conceptualized for applications in construction tower cranes and onshore cranes, where there is an average of three fatalities every year in Australia and many more injuries and near misses due to people being in the vicinity of crane loads.

ROBORIGGER includes a camera, load cell, and internet connectivity so all loads are immediately recorded and logged on the internet. **ROBORIGGER** is ideal for shore base loadout operations, as it improves safety, reduces the number of personnel required and logs all logistics movements.



INDUSTRY APPLICATIONS



CONSTRUCTION

ROBORIGGER improves safety and efficiency in the construction sector by keeping personnel away from the load, reducing cycle times and increasing the operational window.



OIL AND GAS

Automated release of rigging allows loads to be positioned and released without personnel near the load. **ROBORIGGER** is ideal for shorebase loadout operations and offshore non-hazardous applications. Hazardous area rated unit will be provided in the future.



LOGISTICS

ROBORIGGER IoT application can be used as a slimline logistics tracking app. Every load movement is recorded with load ID, date, time, location, weight and still image. This allows personnel to instantly track the status and location of their load.

ROBORIGGER PRODUCTS



ROBORIGGER AUTOROTATER (AR) UNITS

The **ROBORIGGER** Autorotater AR rotating system uses inertial and gyroscopic forces to rotate the load. It is controlled wirelessly using a handheld remote and can automatically rotate the load to a desired heading using its control system that has an inbuilt compass and gyroscopes.

We have tested and commissioned 5 tonnes (AR5) and 10 tonnes (AR10) units. We have designs developed up to 20 tonnes.



IoT APPLICATION

The cloud-based IoT customer platform records full **ROBORIGGER** logistics and lifting information. Downloadable in database or Excel formats for more detailed analysis.

- Still images of every load
- Location, time and date of each lifting operation, including the weight of the load
- Record of all lifting events such as load lifts, set down.
- Relevant equipment diagnostic information such as battery, motor temperature, machine faults.
- Automatic account of safety incidents such as topple and impact.



ROBORIGGER AUTOROTATING MODULE (ARM) UNITS

The **ROBORIGGER** Autorotating Module (ARM) is high power ruggedized version of Roborigger Auto Rotating (AR) units combined with 15t or 20t lift frame.

The **ROBORIGGER** ARM units incorporate a design capability to rotate and hold in position a 40ft container of weight up to 20 tonnes in winds of 15 knots.



HOOKS AND TRUNKS

The **ROBORIGGER** Wireless Release Hook allows the operator to release the load from the Autorotater remotely by wireless. The system has inbuilt safeguards to prevent release under load and has a dual command system using separate buttons to initiate a release.

The hooks can also be located on the end of the sling sets or a single torsionally stiff sling.