

# Electric Launch & Recovery System Project Summary

## Project Challenges

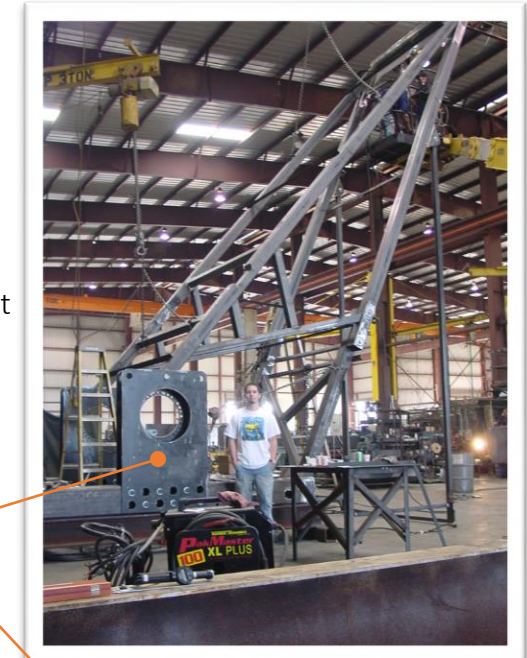
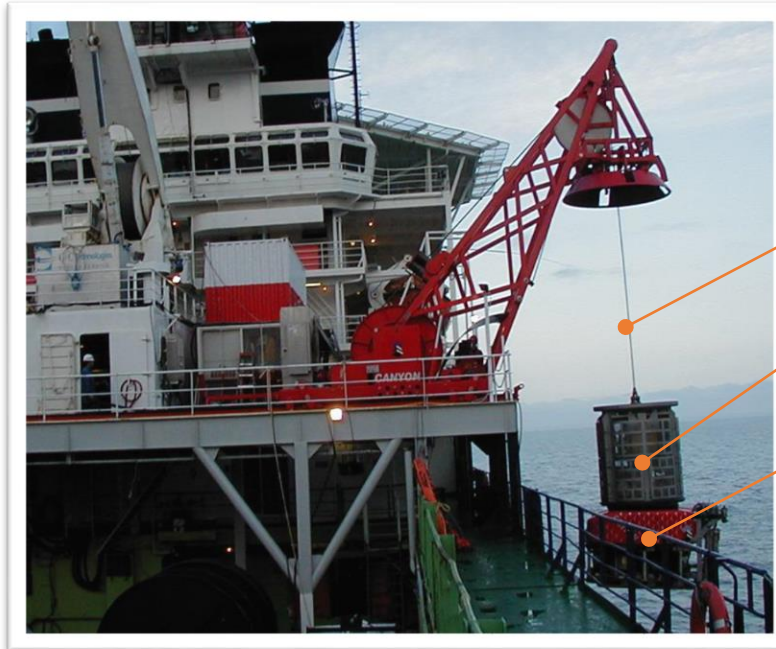
- Designing an electric launch and recovery system when hydraulic power is the standard
- Small 3-4 person core team
- Very high loads from 3000m of umbilical and ROV + TMS weight in rough seas

## Manufacturing Processes

- Welding
- Machining
- Hydraulic line bending

## Highlights

- Designing the lower rails, the trolley, and the large A-frame
- Performing stress analysis (FEA) of all welded structures
- Planning and performing load tests
- Working offsite and overseeing the fabrication of the steel structures. Answering questions, solving issues, and keeping progress moving
- Level lifting of the system with no modifications needed to the rigging
- Successful sea trials



3000m of umbilical

Tether Management System (TMS)

ROV

Fabrication oversight

Load testing using water



Rigging designed with adequate SF and to keep the load level.

Transport Configuration



**THOUGHT BOMB DESIGN**

Work shown was completed as Project Engineer while employed at Schilling Robotics