

UNLIMITED

CONTROL

FOR AUTOMATED TOWER CRANE

Mission for PDP 2020-2021:

Create a user interface for
automated tower crane

Sponsor:

Trenox Ltd.

Requirements for user interface:

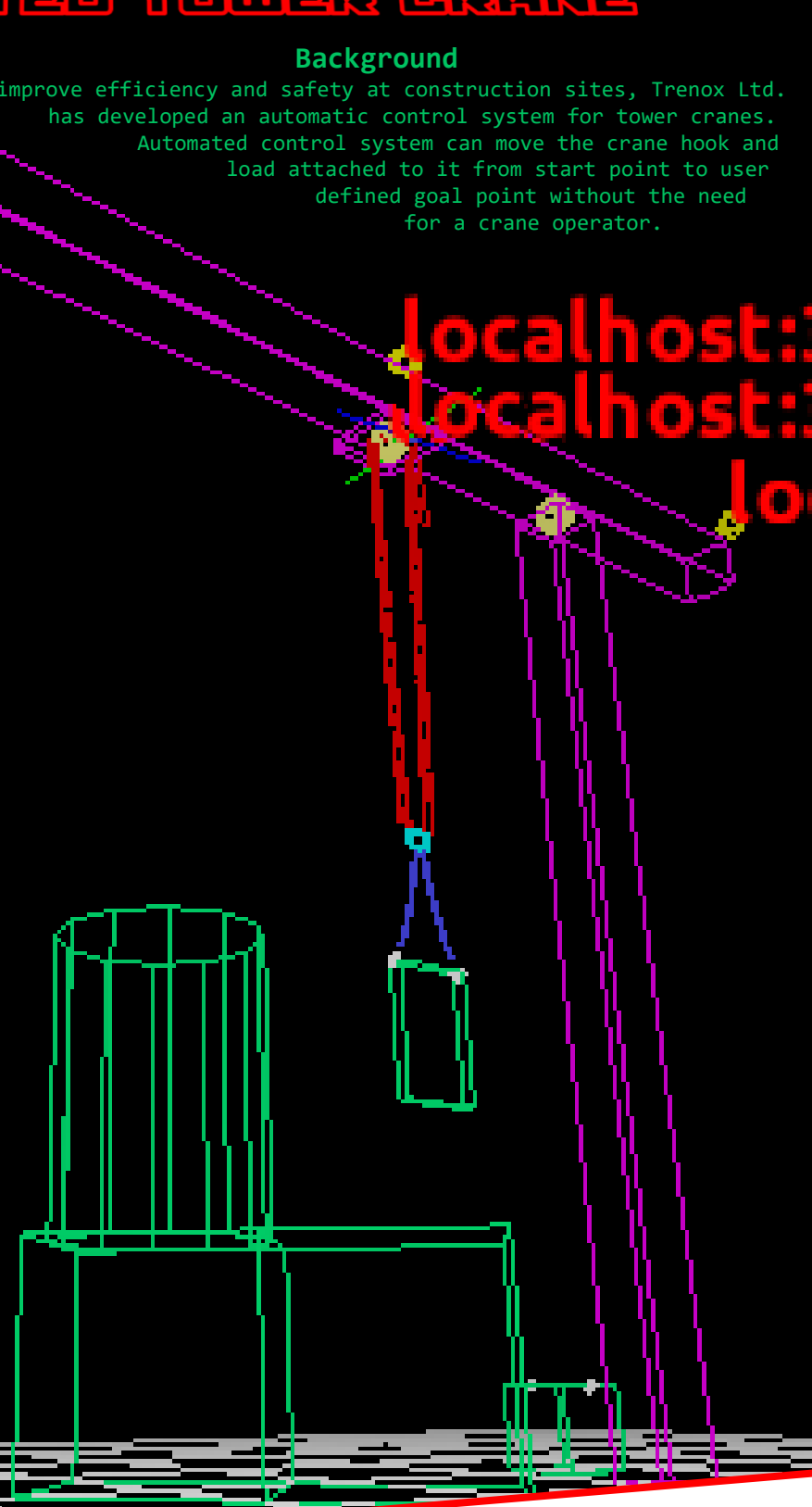
- › Enables the workmen on the ground to use all the capabilities of the automated crane. The interface must not limit the crane usage compared to human operated crane.
- › Available for every person needing the crane
- › Easy and intuitive to use

Your steps:

1. **Investigate** what are the use cases of the current tower crane operation from the viewpoint of the workmen on the ground.
2. **Research** what existing solutions and technologies could be used to create a user interface serving as an intuitive link between the crane users on the ground and the automated crane.
3. **Create** several concepts of the automated crane control interface.
4. **Build** an actual prototype of your best concept that is ready for tests in construction site environment.

Background

To improve efficiency and safety at construction sites, Trenox Ltd. has developed an automatic control system for tower cranes. Automated control system can move the crane hook and load attached to it from start point to user defined goal point without the need for a crane operator.



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