

# Live Fire Testing of Emergency Wire Failure



## TEAM 24

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## PROJECT SUMMARY:

Fire and fuel should never mix, especially at an airport fueling facility. In these facilities, miles of specialized cabling are housed in conduits to withstand and protect against jet fuel fires. We are testing how long fire-resistant cables can survive under intense heat. This testing will provide data for improving fire safety in airports worldwide.

## DESIGN GOAL:

Test the cabling in a kiln to determine how long they can continue operating in the event of a fire.

## DESIGN CONSTRAINTS:

- Test three fire alarm cable types and two conduit types under high temperature conditions.
- Simulate a dike area at an aircraft fueling facility, where jet fuel fires can occur.
- The target temperature is 1000°C (1832°F).
- Determine a pass/fail result for the cables.

