Pinnacle Foods is a food packaging and producing company whose purpose: reinvigorating iconic brands, dynamically evolving and improving our already beloved products to bring more convenience, taste, nutrition, and joy to today's consumers that prepares frozen dinner trays.

**The Problem**
The heat sealer thermocouple does not provide proper temperature feedback which leads to longer on-periods of current that eventually cause the heat sealer to burn the trays and their contents.

**Reason for Solutions**
Each proposed solution was chosen because they were most cost effective solutions that could satisfy the request of the company. Tests in LogixPro software are being done to simulate how the ladder logic programing would work.

**Plastic Roll Solution**
A diffuse proximity sensors will measure level of plastic film on the roll the PLC to trigger LED Alerts to notify operator when film gets too low.

**Heat Sealer Solution**
Current and temperature will be monitored in order to alert an operator when current has been on for too long.

**How It Works**
Plastic film is fed to the bottom of the heat sealer where it applies the heat that allows the plastic film to seal to the food trays before they are frozen. These trays are frozen, packaged and are distributed to worldwide food retailers.

The plastic roll used in the process of sealing the food trays is reaching empty and the food trays are being packed without plastic seal causing the food trays to go bad and be thrown away.