Problem Statement:

Redesign Premco’s existing hinge and latch setup. Both need to work with the specifications given, and also have a sleek design. Each design must be new and innovative and have a streamline look.

Functional Requirements:

Hinge:
- Must have be reversible for left or right side attachment.
- Must carry a minimum load of 300 lb. per pair.
- Must meet 4 or 3 hole pattern of competitors.
- Must have countersunk holes for 1/4” screws.
- Must reach offset height from flush to 1 ¾ in.
- Must be aesthetically pleasing.

Should reach offsets of 1 7/8 and 2 in.
Should be available with or without spring kit.
Blades should be able to be lifted off of hinge.
Should be able to be cam, or non cam lift design.
Should use nylar bushings.

Latch:
- Must have self closing action.
- Must meet hole footprint of competitors.
- Must be available with or without cylinder lock.
- Must have countersunk holes for ¼ in. screws.,
- Must have strike that ranges from flush to 2.5 in. offset.
- Must have inside safety release mechanism.
- Must be aesthetically pleasing.