

Feederhouse Debris Cleaner

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Problem Statement:

Design a fan similar to a leaf blower that will keep debris from building up on top of the feederhouse of a combine. It should engage with the header control and be able to withstand the environment it will be in.

Objectives:

- Design the apparatus necessary for a mechanically driven squirrel cage fan.
- Design the apparatus necessary for an electrically-powered squirrel cage or centrifugal fan.
- Design the apparatus necessary for a hydraulically-driven centrifugal cage fan.
- Construct and evaluate the design approved by the sponsor, Mike Chapman of Chapman Farms Inc.

John Deere 9650 STS Combine

Mounting point
of fan

Area where
debris builds up

