

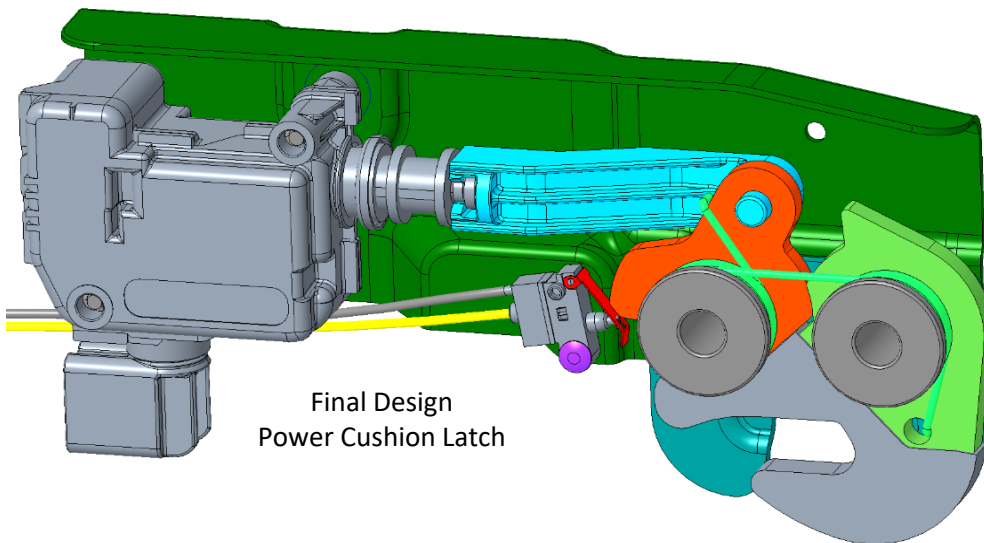
# Virtual Engineering, Inc.

Engineering Your Competitive Edge...

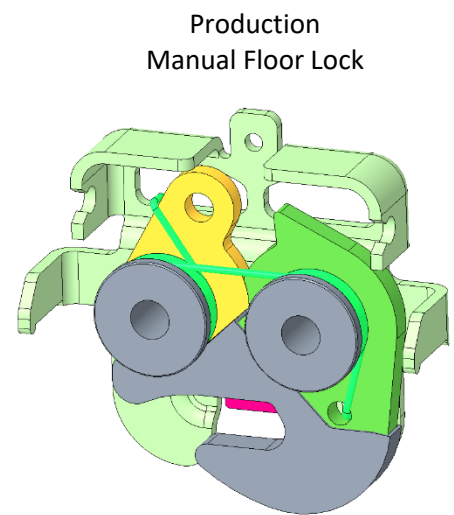
## Power Cushion Latch Assembly

- **Objectives:**

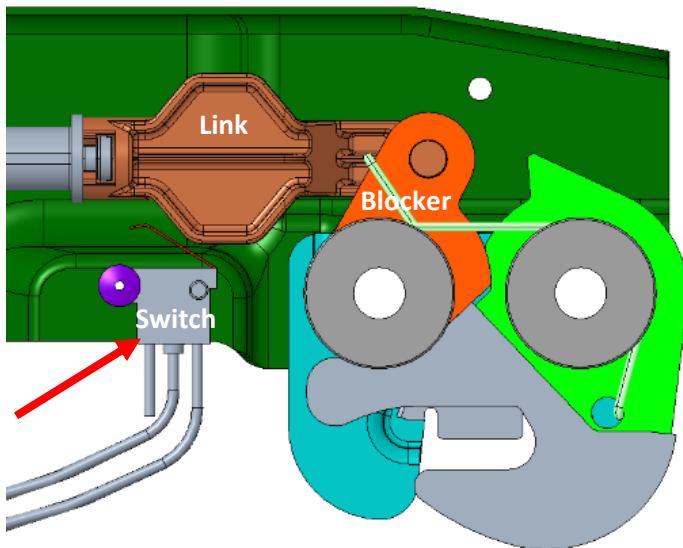
- Refine the design of a Power Release Cushion Latch which uses the basic components from an existing production cable release Floor Lock
- Evaluate the functional accuracy of the switch; the switch should flag the control module if the Latch is not fully locked
- Create production release drawings



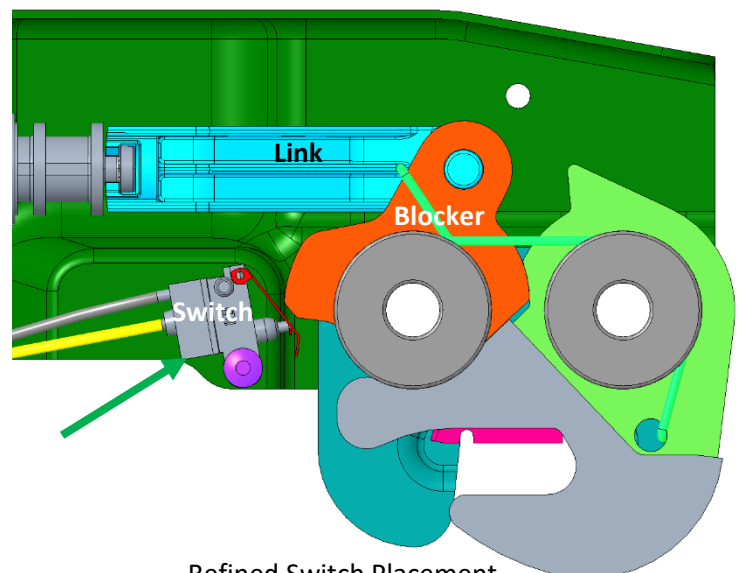
Final Design  
Power Cushion Latch



Production  
Manual Floor Lock



Original Switch Placement



Refined Switch Placement

## Power Cushion Latch Assembly

- **Process:**
  - Acquired drawings for production lock parts, power actuator, and switch
  - Completed tolerance stacks and motion studies
  - Studies showed the original Switch placement, and actuation by contact with the Link, may give a false reading of locked when the latch was unlocked
  - Changed the Switch trigger from the Link to the Blocker, achieving a higher precision actuation of the Switch
  - Created production drawings and specified GD&T
- **Results:**
  - Redesigned switch placement and Blocker profile so that the switch actuates by contact with the Blocker instead of the Link
  - Detection of “unlock” is more precisely controlled
  - Released production drawings

