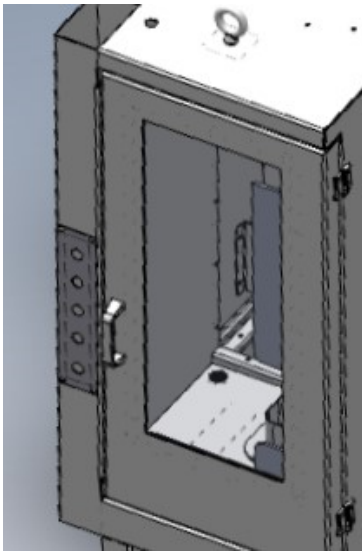


REAR TOOL CHANGER ENCLOSURE - HARDINGE

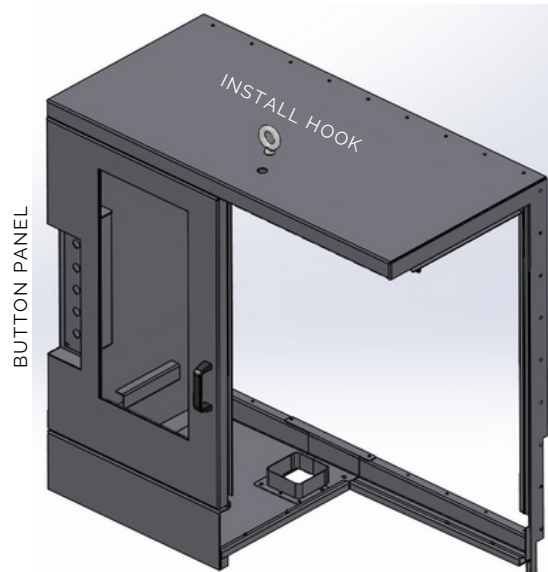


What?

- A **wider** enclosure for a new tool changer

The problem

- Double width **blocks** access to essential **maintenance** panel

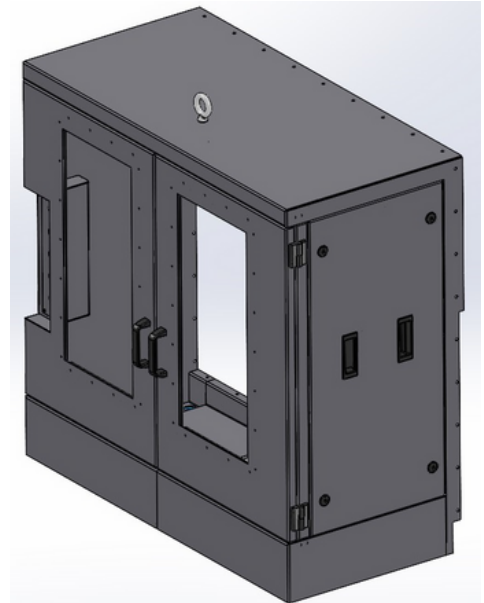


Solution

- Make the corner removable

The problem

- Too **heavy** and large to remove by hand

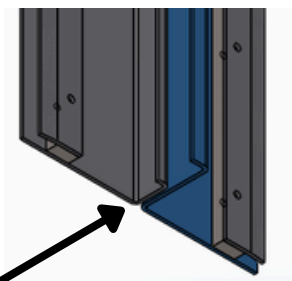
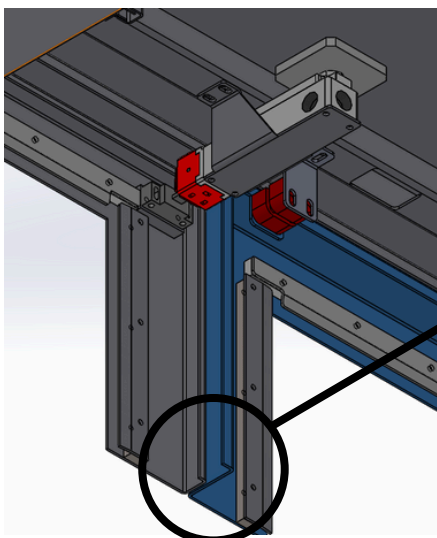


Solution

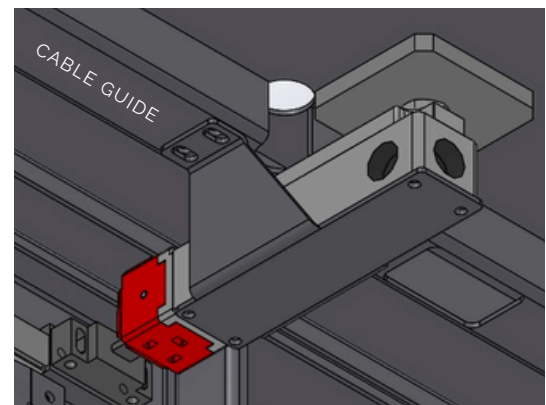
- Split corner into multiple easily removable pieces

The problem

- Hard to ensure **safety** lock out



L-shape stops right door from being opened without an unlocked left door



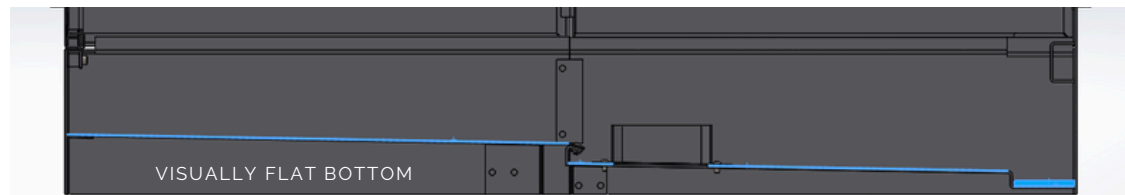
Access hole allows manual lock opening in case of electrical failure

Solution

- Add locking and non-contact switches to detect open doors

Results

- Impossible to run machine without all doors closed



Sloped floor **collects coolant** drippings to be filtered and recycled