

The Engineer's Life: My MacGyver Moment

If you're an engineer, you've probably enjoyed a few "MacGyver Moments*" where you solved a seemingly impossible problem using only your ingenuity and a few unlikely scrounged-up items. While I'm not as clever as that fictional TV hero, I've occasionally applied my engineering skills to everyday dilemmas, including the time I found myself trapped buck-naked in a hotel bathroom, without any apparent means of escape.

That particular incident happened a few years back while I was attending a technical conference in Texas. I was preparing for the day's activities in the bathroom, enjoying a cup of coffee and a long, hot shower. I'd brought my suit into the bathroom so it could de-wrinkle a bit in the steamy atmosphere. Things took a surprising turn when I emerged from the shower, dried off, and discovered that, no matter how hard I turned the doorknob, the bolt would not pull back and let me out.

Fighting the urge to panic, I decided to treat my situation like an engineering problem and see if I could think my way out of the predicament. I looked around to see what stuff was available to engineer a self-rescue and came up with a sturdy coffee mug, a coat hanger, and the contents of my shaving kit.

First, I broke off a short piece of coat hanger and tried unsuccessfully to use it as a pry bar to slide the bolt back so it would clear the striker plate in the doorframe. My next attempt involved trying to drive the pins out of the door's hinges with the coat hanger segment, using the heavy coffee mug as a crude hammer.

When that failed, I re-examined the door lock. I still couldn't see what the problem was, but I did notice a small hole in the knob that appeared to be a place where a pin could be inserted to disassemble the mechanism. Unfortunately, the coat hanger wire was way too thick to get through the hole.

I then wondered if the doorknob on the other side of the door might still work. There was a built-in tissue dispenser on the wall near the door that I could remove, leaving only one layer of sheetrock between me and the other side of the door. I used a nail file as a crude screwdriver to remove the two sheetrock screws that held the dispenser in the wall. Breaking open a disposable razor gave me a blade to pre-score the sheetrock and wallpaper so I could create a clean hole that could be easily repaired. I triumphantly reached through the hole I'd created, only to discover that the outside doorknob turned as uselessly as its mate inside the bathroom.

Covered with gypsum dust and out ideas, I was tempted to give up but decided to take another look around the room to see if I'd overlooked anything. In my search, I noticed the hardened steel drywall screws. On a hunch, I took one of the screws and stuck the tip into the hole in the soft metal doorknob and began to rock it back and forth. It took a few minutes to enlarge the hole enough to fit the piece of coat hanger through and pop the assembly apart. I still couldn't tell what had caused the malfunction in the bolt retraction mechanism, but it was easy to push out the shaft should have connected it to the two doorknobs and slide it back with my finger.

Before leaving for my first meeting of the day, I called the front desk to explain what had happened and apologize for the hole I'd cut in their wall. I was surprised to learn that, instead of charging me for the damage I'd done, the hotel apologized profusely for the inconvenience and moved me to one of their executive suites for the remainder of my stay.

Has engineering affected the way you see the world? Have you had your own MacGyver Moments? If you'd like to share your experiences with me, and your fellow readers, please write me at:

lee.goldberg@advantagemedia.com.

** "MacGyver" was a 1980's action-adventure TV series in which super-spy Angus MacGyver saves the world from evil with a Swiss Army knife instead of a gun. In each episode, he escapes danger or brings down his foes by creating ingenious contraptions out of whatever odds and ends he happens to find.*