

Badge holder multi-tool



- Everybody at NASA and lots of other people have to wear identification badges. They are worn whenever at work but also lots of times when not on site or not at work but still doing our jobs. Since it is always on your person, why not make it hold something or somethings that you often need to do your job but don't always carry (forgetfulness)?
- Pen, pencil, little screw drivers, measurement tool, small light, USB thumb drive... what would be valuable that you might not always have but need for the meeting, shop or at the copier.



Badge holder—multi tool

Requirements:

- Holds a credit card size badge without obstructing visibility of the picture and information on the badge.
- **No larger than 2 ¾" x 4" x 1/2"**
- **No heavier than 60 grams** (don't weigh down a shirt too much)
- Will not damage clothes—snag, ink
- Must include a piece of aluminum backing that will prevent reading of info from the magnetic strip on the back
- ~~Transparent cover that protects the badge from damage but allows visibility of picture and information---not needed but has value~~
- Full badge must be visible
- Easy to remove badge from badge holder
- Must be able to demonstrate each of the tools.
- Must have at least 3 ideas for increasing the usability of the badge holder
- Must not damage magnetic stripe or chip when sliding in or out
- Allows for easy attachment to clothing with either a clip or handle a lanyard
- **Has to be able to go through TSA when traveling on airplane (no knives)**
- Show your best 2 badge holder styles
- Don't clutter with too many tools especially if they aren't worthy or are easily available somewhere else.



What else can a badge holder do?

- Holds a pen and/or pencil
- A couple of screw drivers for eye glasses
- Mirror
- Nail file
- Tape measure
- Thermometer
- Measurements on the side of the card
- Hex holes so it could be used as a wrench
- A pocket that lets people put their personal little thing in there
- Flash light
- Mechanical caliper
- Pin for resetting your phone
- Magnifying lens
- Protractor
- Bluetooth noise maker that can be activated by your phone so you can find it (usually between the seat cushions of the couch or in the car)
- Holder for reading glasses (some of us are old)

Don't limit yourself to these ideas.

The beauty is in the details of how it is incorporated. You will be competing with a lot of creative minds. Come up with something you and other people would appreciate.

Current badge holder supplied by security for NASA



This photo is from the internet. Sorry, I'm not allowed to photograph a NASA badge. But this is similar to what NASA badges look like. The back side has a magnetic strip and a bar code. The back side does not have to be visible through the back (covered by the aluminum card).

A badge holder with a clip, plastic holder and aluminum card has a mass of 27 grams.



Front side



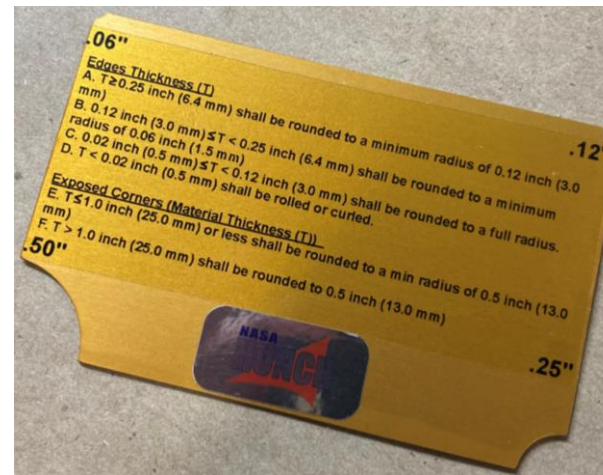
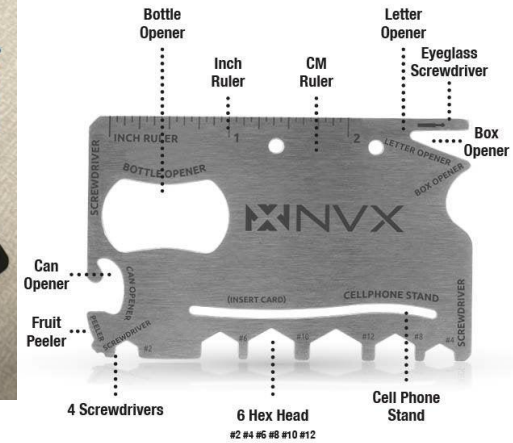
Back side

The thin sheet of aluminum is .020" thick and has the same length and width dimensions as a credit card. Its purpose is to prevent someone with an electronic device from being able to scan the magnetic stripe and gather information from an ID badge at a distance. Could it be done with thinner aluminum?

NOT A SURVIVAL TOOL--

we need a tool for everyday use-- office, shop, job.

- The objective is to have a few tools that can be used in a pinch because the tool normally used is back at your desk. The objective is not to carry around a bunch of tools that are used all the time.
- No multi tool badge would work for everyone. Make 3 different ones.
- We don't need bottle openers.
- Who will use it? NASA is more than astronauts.
 - scientists, engineers, IT specialists, human resources specialists, lawyers, accountants, writers, technicians, chefs, Managers, sewers, machinists, assemblers, secretaries, food scientists, cleaners, security, plumbers, electricians, carpenters, gardeners and many other kinds of people working together to break barriers to achieve the seemingly impossible.
- Elements to think about
 - Is the tool always ready to go or is it retracted or hidden.
 - Does it flip out, rotate out, need a button
 - Is it embossed writing or information on one side of the badge holder or both
 - Does the badge have to be removed to use it?
 - How much stuff is too much?
 - What will you name your product?
 - Both sides can be used
 - Is color important
- **Materials**
 - 3D printed, aluminum, steel, leather, ... combination of a few materials
- This is not a survival multi-tool. This is intended for everyday kind of work.



This is a fit check tool HUNCH made for some of our partners who need to verify the corners on flight hardware before it is accepted. Because it is a credit card size and made of aluminum, they carry it in their wallet until they need it. The writing was applied on a sticker but it could be done with an engraver or laser.

We don't need bottle openers or knives.

