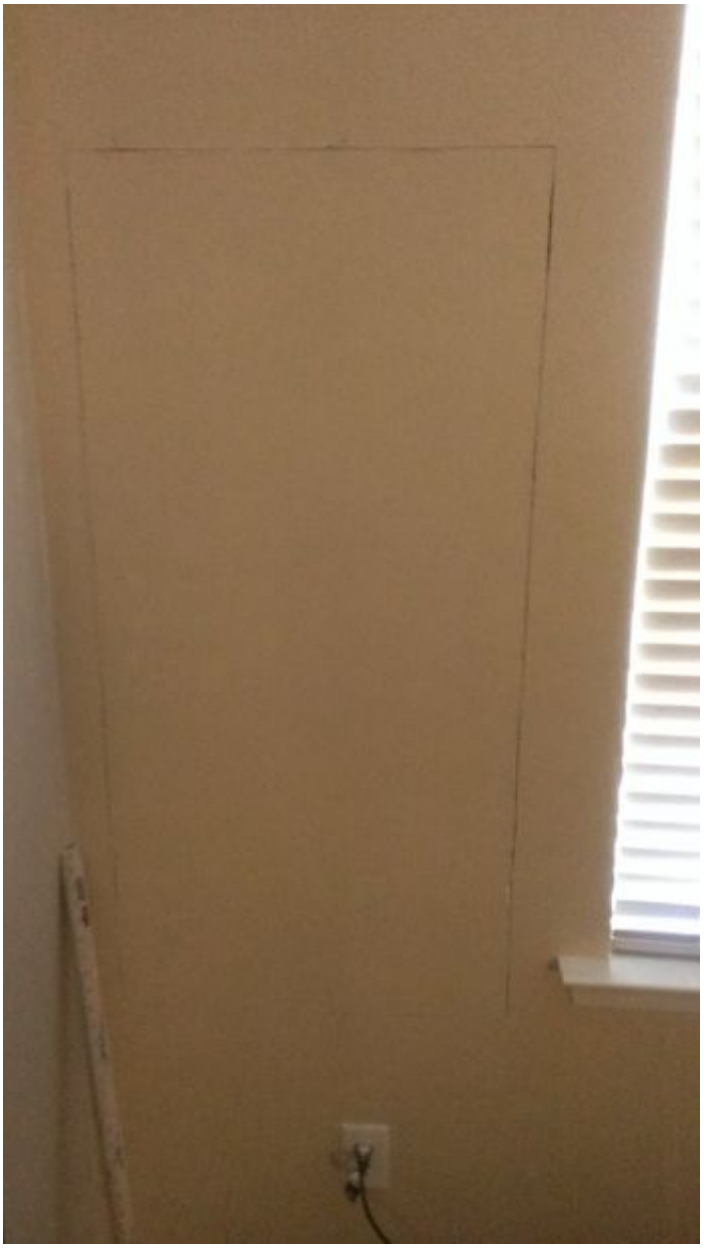
Hidden in Wall

Gun Cabinet

I wanted to have a place to secure my firearms that wasn't visible all the time, so I came up with the idea of a recessed in the wall gun cabinet that doubles as a Full body mirror. Then I wanted to go one step further with a hidden keypad behind a picture to control a solenoid lock.

Step 1: Find a place, buy supplies



First thing you need to do is find a place suitable for a in the wall cabinet. You need to be careful of plumbing and wires.

I purchased the keypad for around $13.00 and the soleniod around $12.00 on amazon. The keypad even reads rfid tags that came with it. I also used three 8 ft 1x4's and two 8 ft 2x4's.

Step 2: cut the holes

The outside edge of the door is 2ft by 4ft so the hole in the wall needs to be smaller than that so that it is concealed by the door.
Be careful cutting into the wall I used a cheap multi tool from harbor freight to cut the holes.

I had a stud in the way I had to cut out, I measured 1 1/2 " behind the drywall to cut the stud so that a 2x4 would fit behind the drywall on top of the cut out stud. you need to the frame out behind the drywall

with the 2x4's see pictures.

If your concerned about removing or cutting any stud in the wall you can easily work around them I just didnt want one in the middle of my cabinet. also there is plenty of room for 1/2" foam insulation behind the cabinet so I would recommend putting it there if you are on an outside wall.

Step 3: wires

Run wires to the keypad, you may be able to go through the attic or under the house or in my case I pulled up floor molding to run the wires behind it to the keypad.

Step 4: Build a box

Build a box out of the 1x4s to fit into the hole since the box is going to be slid out to the edge of the drywall there is going to be a 1/2 gap behind the box and the other side of the wall.

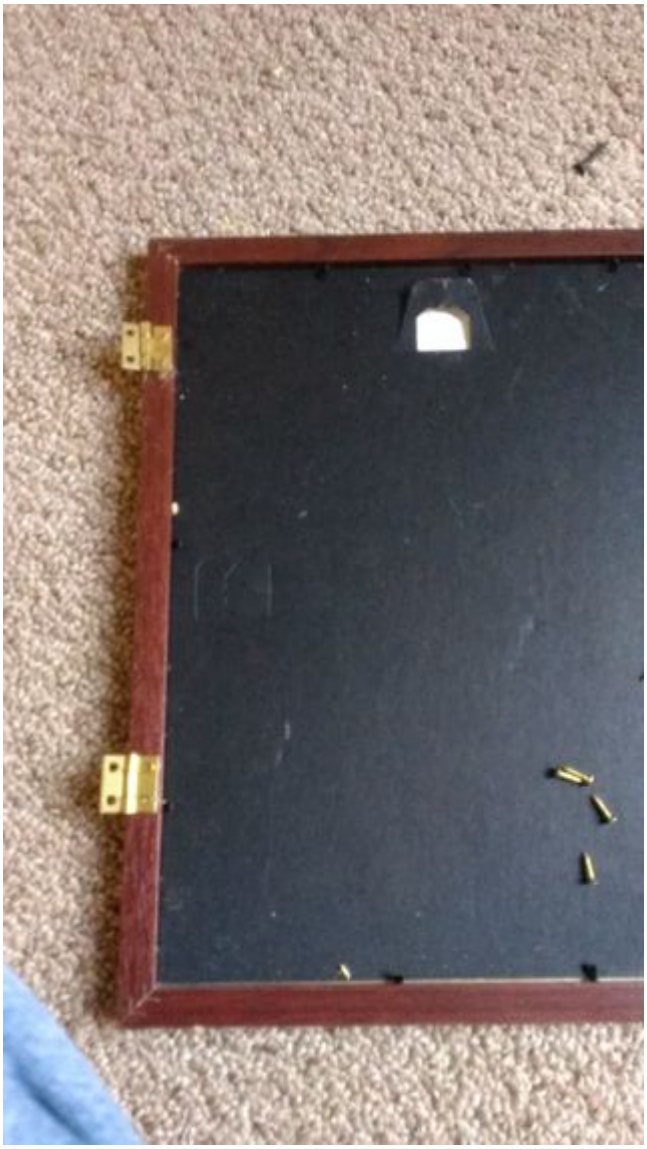
I attached plastic to the backside of the 1x4 frame for a back, but you could use paneling, thin plywood, etc.

Slide (or pound in my case) the box into place and attach with screws.

Step 5:

Pick a place for the keypad , cut hole in wall and run wires to it .
I made a recessed box out of plastic on my vacuum former but you could make a small wood box to mount the keypad in.

Step 6: The Doors



I used 1x4's to make a 2' by 4' door using a table saw I cut a groove into the side of the 1x4 to hold the mirror then cut a 45 degree angle on the ends of the 1x4's then assembled . Then add cabinet hinges.

Ok so my 45's didnt come out quite right I will be covering them with rosettes in the near future.

Put hinges on a picture frame to cover up the keypad. I also put a screw in the wall for a magnet thats on the back of the picture frame to attach to.

Step 7: The lock

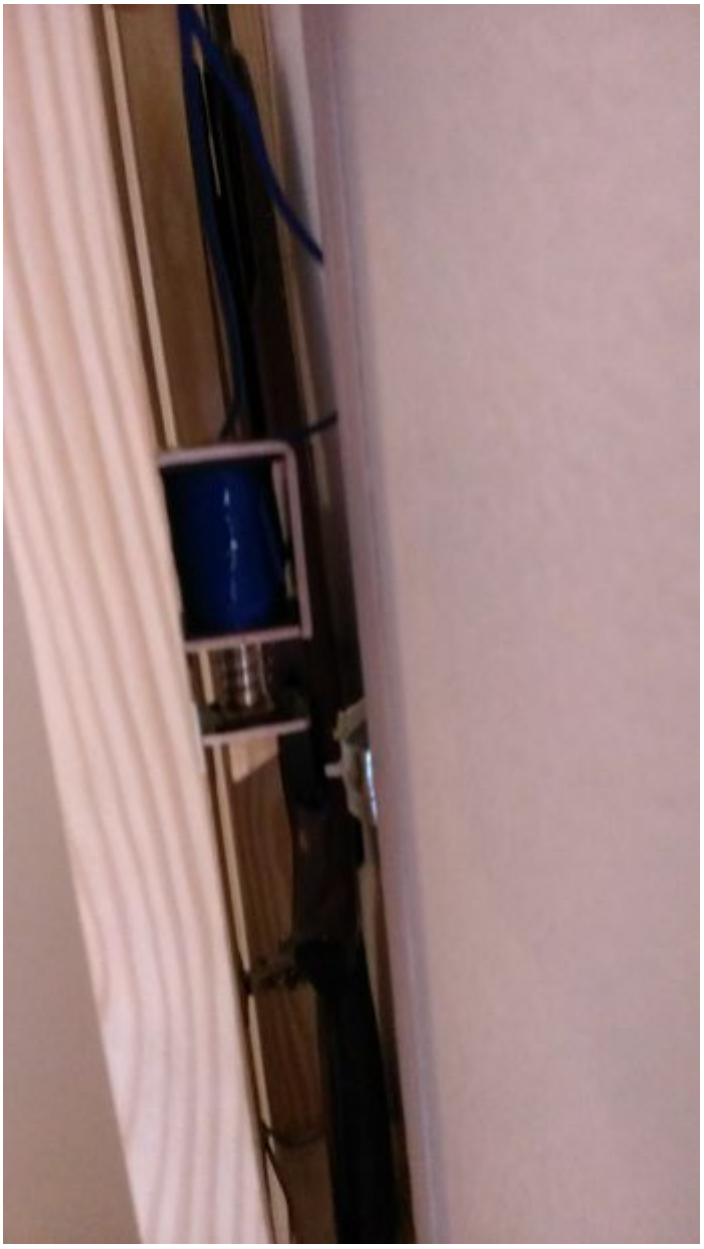


Figure out a way to attach the solenoid, I used a small steel strap with holes in it to screw the solenoid to the door.(also used epoxy)

I could have attached the solenoid to the frame instead but it never crossed my mind until just now.(I might change it)

then figure out a way to have the solenoid to catch onto something. I used a metal pipe strap that I bent into the shape I needed then

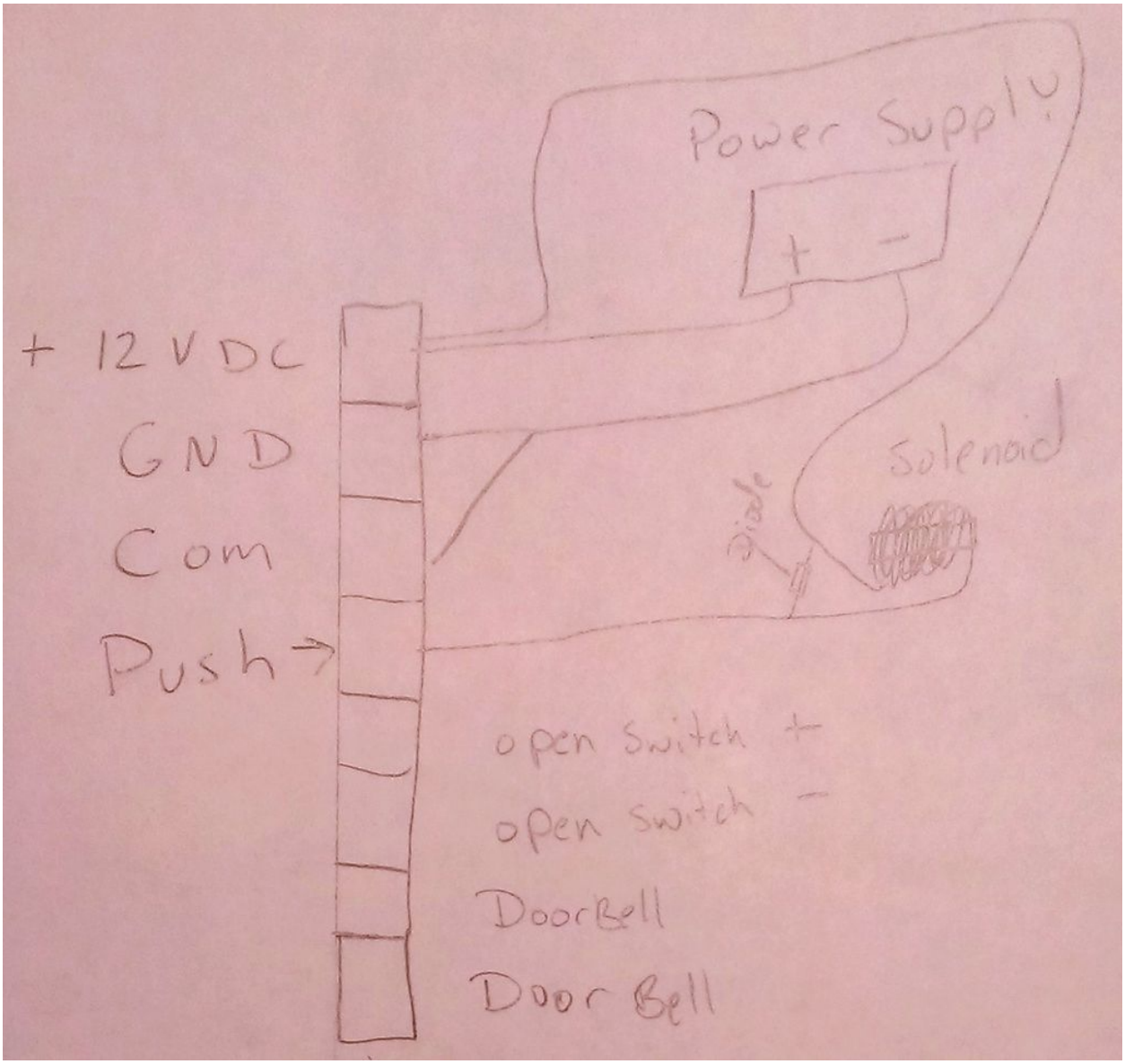
attached it to the door frame.
Wire it all up and test the wiring BEFORE closing the door.

Step 8: Almost final product

The final product has been tweaked a little, the plexi with mirrored tint did not work out, so I replaced that with an actual glass mirror.

I covered the 4 corners of the door with rosettes because of my poor cutting.(I think I like it better that way anyway).

I also put a diode across the solenoid to take care of inductive kick. I say almost because I still have to put a piece of wood across the inside to hold the barrels of the rifle and a place to mount a pistol.


Power Supply
+
-
+ 12 V DC
GND
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Push →
Solenoid
diode
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open switch -
DoorBell
Door Bell