The plan for this was to make a fsr pad that anyone could recreate easily without many tools

Tools needed
Soldering iron
Wire strippers
Hot glue gun
Electric drill
⅜ counter sink bit
https://www.amazon.com/Ivy-Classic-09049-Countersink-Flute/dp/B07GBJBNLJ/ref=sr_1_5?crid=DTGW13SYU8HZ&dchild=1&keywords=3%2F8+countersink&qid=1617569124&sprefix=3%2F8+counter+sink%2Caps%2C208&sr=8-5
¼" Drill bit
exacto knife

Parts

Force sensitive Resistors(8 of them you can probably get away with 4 but 8 work better) : I used these ones
https://www.amazon.com/gp/product/B075MSKNRR/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1

Arduino Leonardo with Headers
https://www.amazon.com/Arduino-org-A000057-Arduino-Leonardo-Headers/dp/B008A36R2Y/ref=sr_1_3?crid=328GQ5PM2YJ95&dchild=1&keywords=arduino+leonardo&qid=1617570305&sprefix=ardunio+l%2Caps%2C194&sr=8-3

Lights i used better home and garden led tape lights from walmart they were $13 at walmart

Breadboard
https://www.amazon.com/Pcs-MCIGICM-Points-Solderless-Breadboard/dp/B07PCJP9DY/ref=sr_1_5?dchild=1&keywords=breadboard&qid=1617570219&sr=8-5

Project wires
https://www.amazon.com/gp/product/B08151TQHG/ref=ppx_yo_dt_b_asin_title_o05_s00?ie=UTF8&psc=1

Wire just about anything will work as long as it can handle 5v
https://www.amazon.com/TUOFENG-Wire-Solid-different-colored-spools/dp/B085QD9DWP/ref=sr_1_6?dchild=1&keywords=wire%2Belectrical&qid=1617569874&sr=8-6&th=1

Electrical tape
https://www.amazon.com/Scotch-Heat-Resistant-Listed-Certified-Electrical/dp/B001AXD0EY/ref=sr_1_11?dchild=1&keywords=electrical+tape&qid=1617569789&sr=8-11

Gorilla weather tape
https://www.amazon.com/Gorilla-Tape-Black-Duct-1-88/dp/B000CSS8UE/ref=sr_1_3?crid=157VFH578037S&dchild=1&keywords=gorilla+duct+tape&qid=1617569743&sprefix=gorilla+duc%2Caps%2C182&sr=8-3

Resistor 100k ohms (you may need different values depending on what fsr you use)
https://www.amazon.com/EDGELEC-Resistor-Tolerance-Resistance-Optional/dp/B07HDG9K8P/ref=sr_1_3?dchild=1&keywords=100k+resistor&qid=1617893360&sr=8-3

8 felt floor protectors

Superglue

Screws
https://www.lowes.com/pd/Grip-Rite-PrimeGuard-Plus-8-x-2-in-Polymer-Deck-Screws-1-lb/1000118285

Seven 12”x12” Stick Vinyl Flooring they are like $.60 at lowes

For the bar
2 of these
https://www.lowes.com/pd/Southland-Pipe-3-4-in-x-3-ft-150-PSI-Black-Iron-Pipe/1000227959
https://www.lowes.com/pd/Mueller-Proline-3-4-in-x-3-4-in-dia-90-Degree-Black-Iron-Elbow-Fitting/4330120
And 2 of https://www.lowes.com/pd/B-K-3-4-in-Black-Iron-Floor-Flange-1/1002067002

1 of this
https://www.lowes.com/pd/Southland-Pipe-3-4-in-x-2-ft-150-PSI-Black-Iron-Pipe/1000227955

wood you need cut from lowes
2x4:
three 33”
Two 6”
Two 26”
Two 5”

Plywood base ¾ thick cut 33inch by 40 inch

Acrylic optix .22inc sheets
Have them cut a sheet so you have nine 11”x11”. Doubled for each arrow and one for the center when they cut mine none of them were perfectly 11x11 but it still worked fine maybe you will have better luck

Four 11”x11” pieces of ½ inch plywood and 1

One 11x11 piece of ¼ inch wood

Six 1.5”x10”x1/4” pieces. Four 1.5”x10”x1/4”

You need to put this on your arduino
https://github.com/teejusb/fsr

Put the 1 Stick Vinyl Flooring on each of the four 11”x11” pieces of plywood. Use some superflue to hold them down and put something heavy on top. I am putting this 1st so they will be ready when you get to them. After they dry flip them over and use your exacto knife to tim off the extra (I did not do this 1st so some of the photos do not match)

Take the 8 floor proctors and put on the bottom of of your 33”x40” base

Flip the base over. Screw down a 2x4x30 each of the the 40” side of the base. Line of the edge of the board with the edge of the base

So it looks like this

I used 3 screws for each board

Step
Leave a 5.5 inch gap then put down the 2x4x6in in the middle and screw that down

Step
Leave a 1 inch gap under them and screw down the 2x4x26inc. I used a straight bard on the bottom to make sure everything was lined up

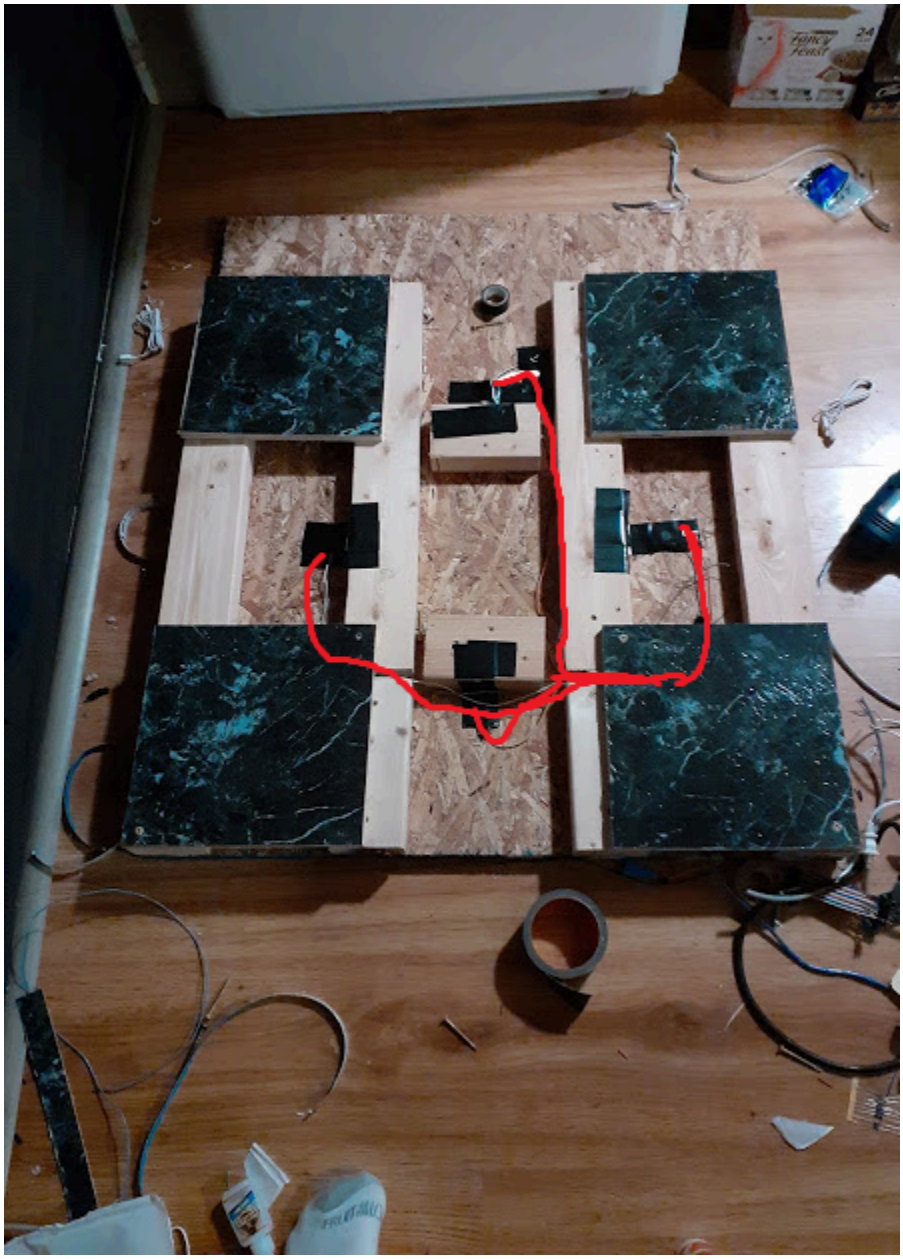
Step

I placed the 4 corner pieces in place and made sure the plexiglass would fit then i put a screw in each 2 of the conors of each corner piece

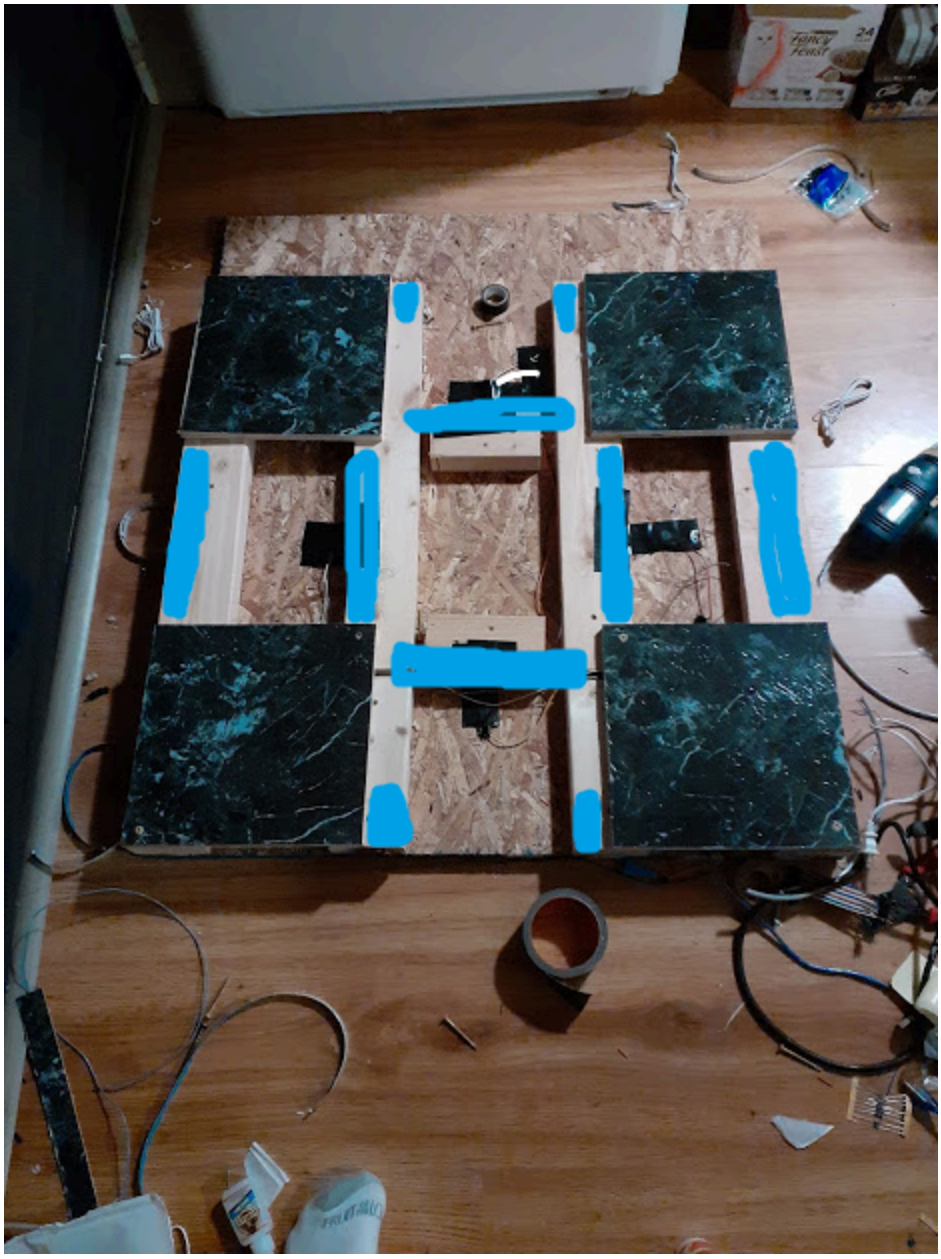
Step
I screwed down the two 2x4x5 inc pieces in the middle so that the plexglass would cover half of them and that the center panel would cover the other half

Step

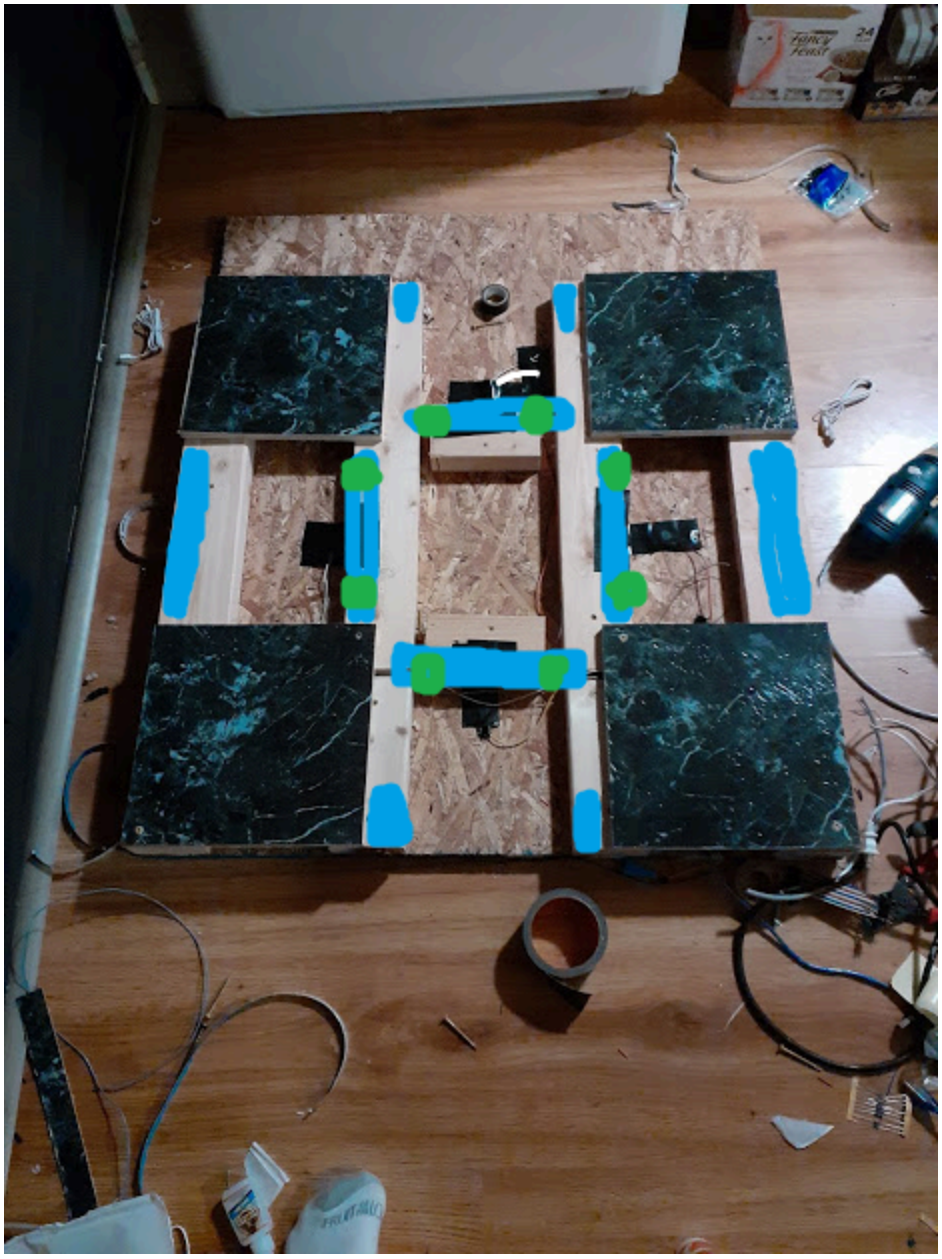
Originally i was going to use 1 fst per arrow but i did not like that as much when it was done so i ended up using 2 fsr for each arrow. Here is a photo of the original (the wiring path is mark with red



I screwed down some 1/4 pieces of wood and put the fsr on top of them. In this photo the blue shows where i put the 1/4 pieces



And the green shows where i put the fsr


Fancy Feast
24

just make sure you do not put a screw in the fsr when you put the arrows in

I held down each fsr with 1 piece of gorilla tape

Step

I matched up each piece of plexiglass with another one that was closest in size. Then I drilled a hole about 1”x1” for each edge with a ¼ bit. I then used the counter sink bit. When you counter sink the hole just make sure the screw head fits fully inside but do not go too deep

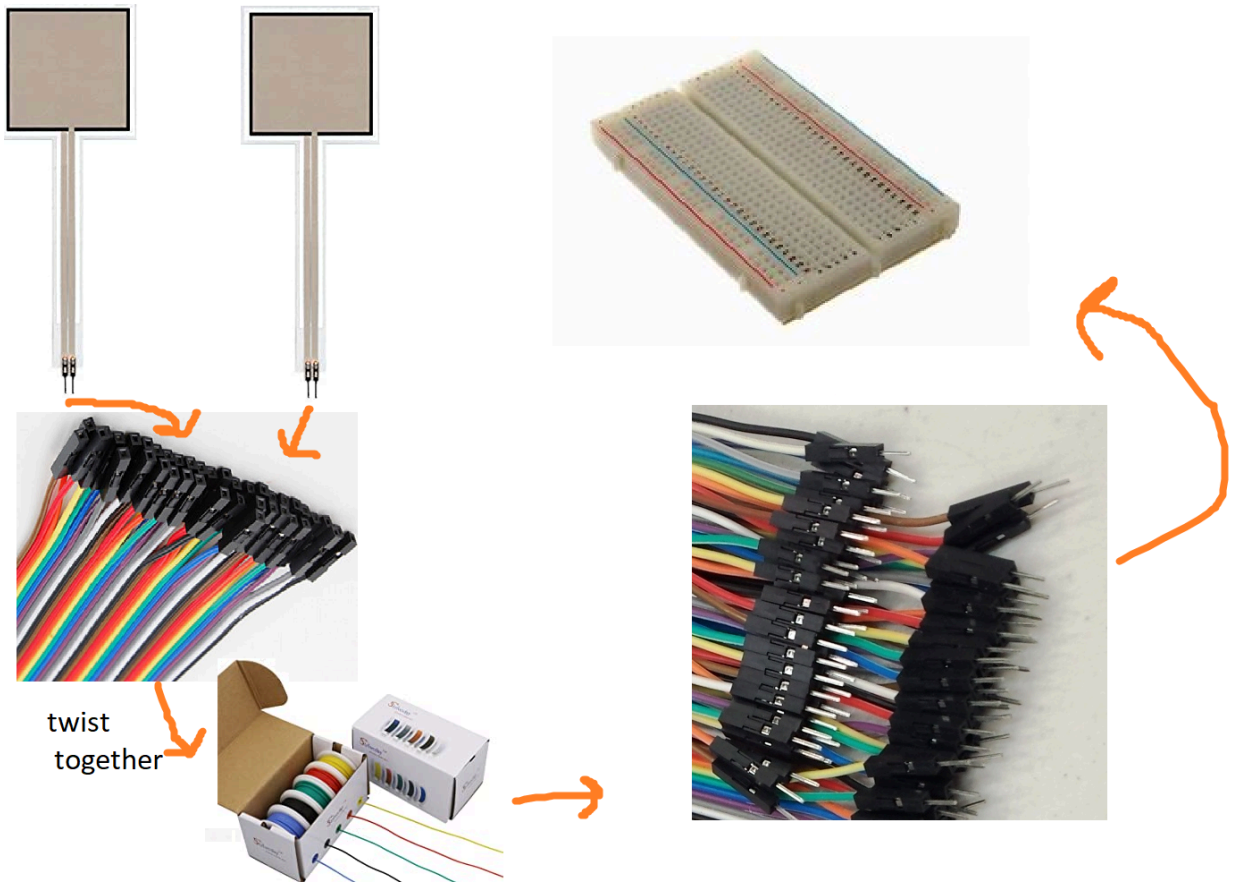
I used this instructions to have the arrow graphics printed
https://www.hackmycab.com/?portfolio=arrow-panels-part-1-making-new-polycarb-panels

I put the graphics on the bottom of the top piece of glass then i used a little bit of super glue on the edges to hold the 2 pieces together

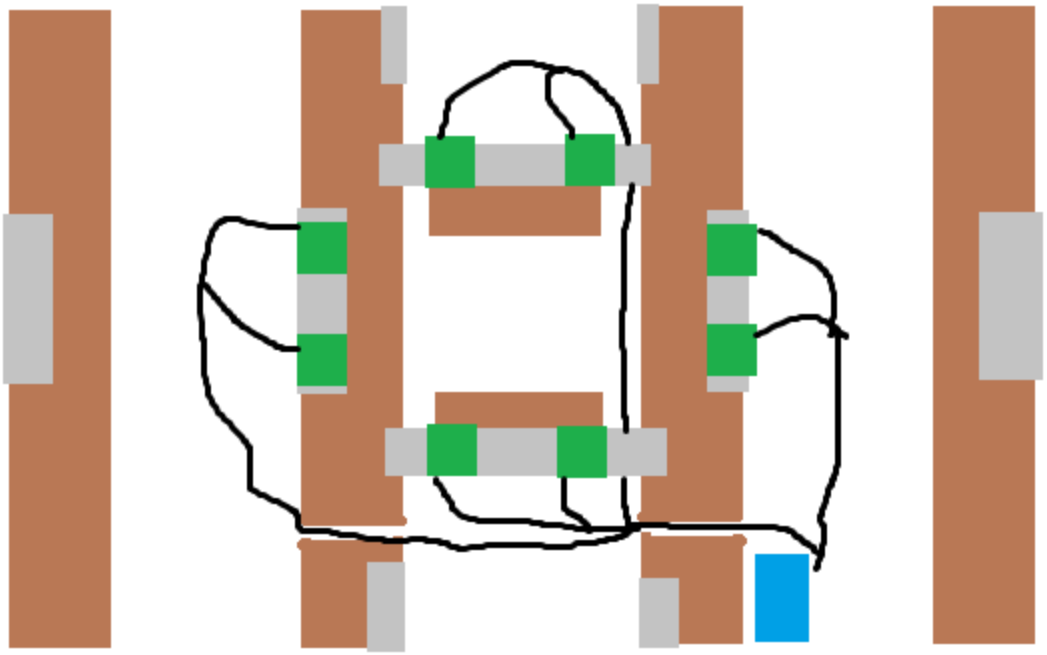
Wiring
The fsr i used had tips that fit perfectly inside the project wire ends. Some fsr this does not work with

I then covered the end with tape so it would not come undone (hot glue would probably have worked just as well) i then taped it too the base to keep the wire in place (again hot glue probably would have been better)

The other end of the wire I cut off and stripped. I attached a longer wire to each wire then soldered them together then I ran them under the front left panel. Then I solder another wire on with the male ends for the breadboard. Just look at the photos i think it will make more sense

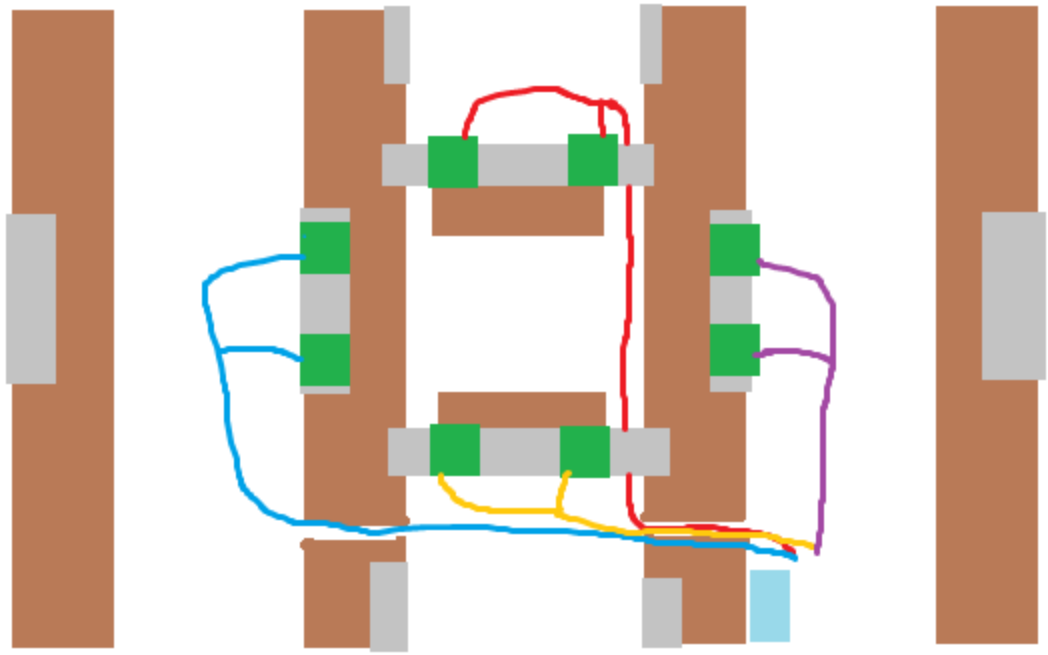


Ok here i am going to try to draw out the wires paths this is not to scale

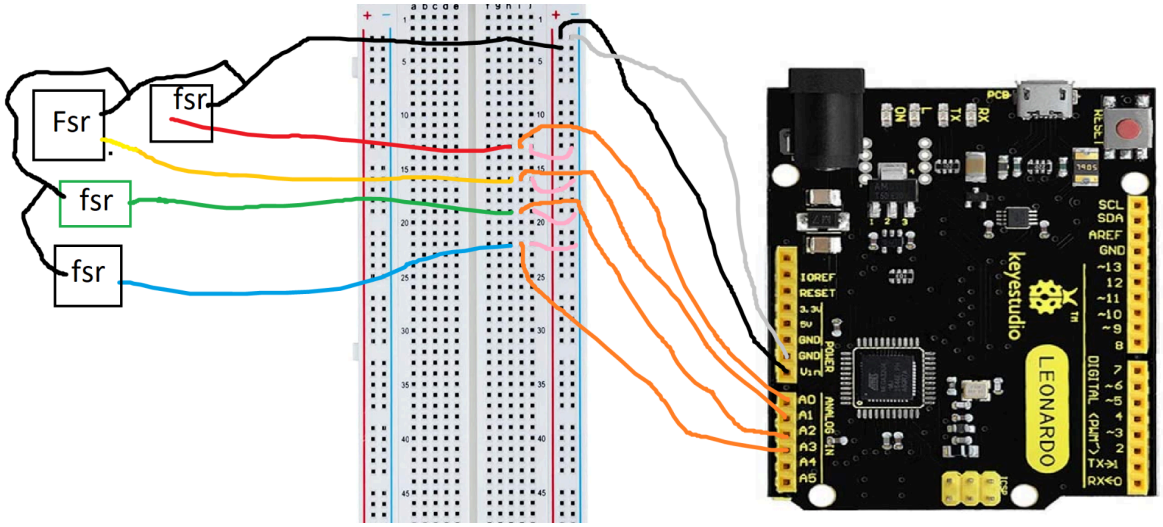


Black is the + wires
Brown is the 2x4
Gray is the ¼ inch strips
Green is fsr
Blue is breadboard

Here is how you want the - wires



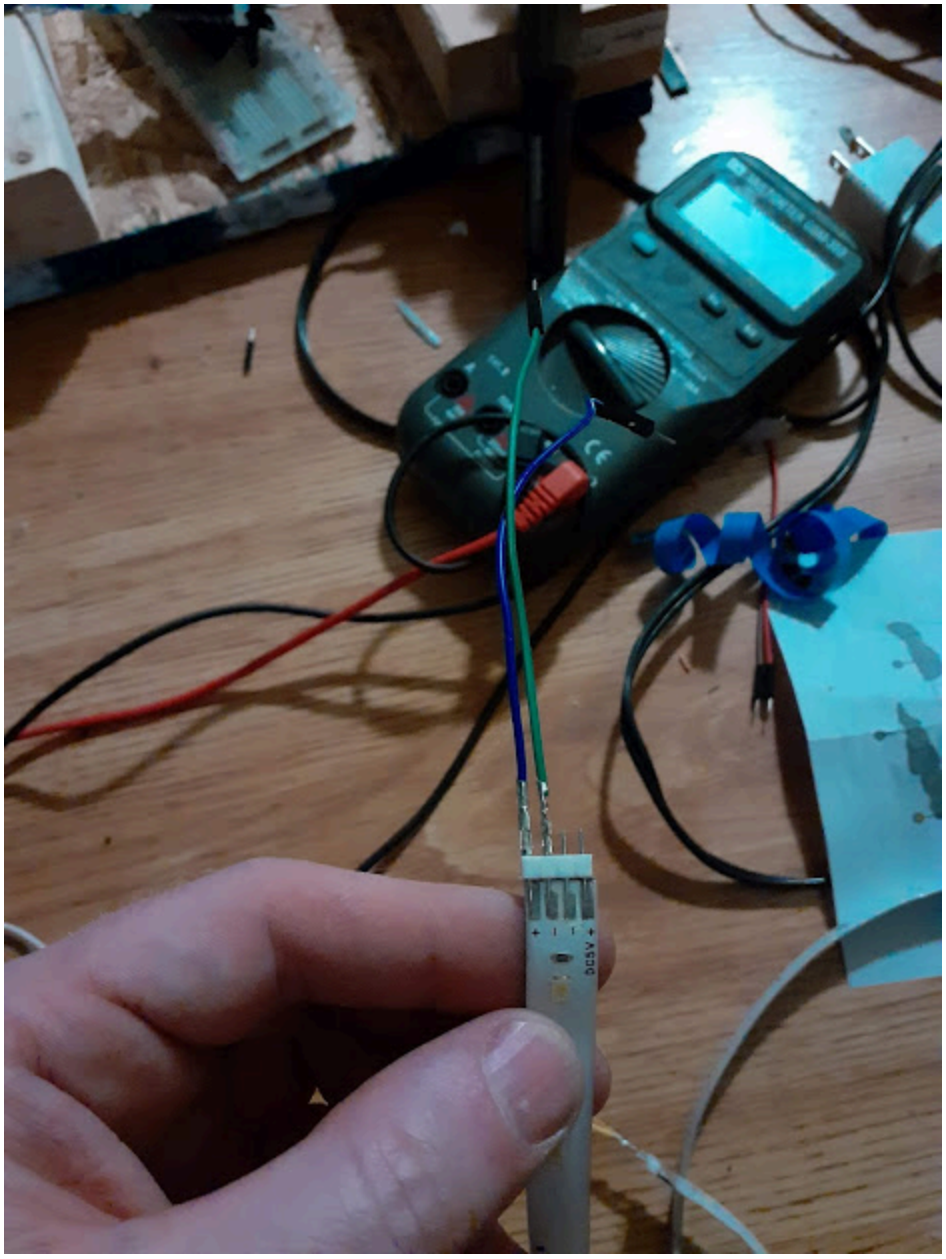
Here is how you hook up the board. The pink is where the resistors go

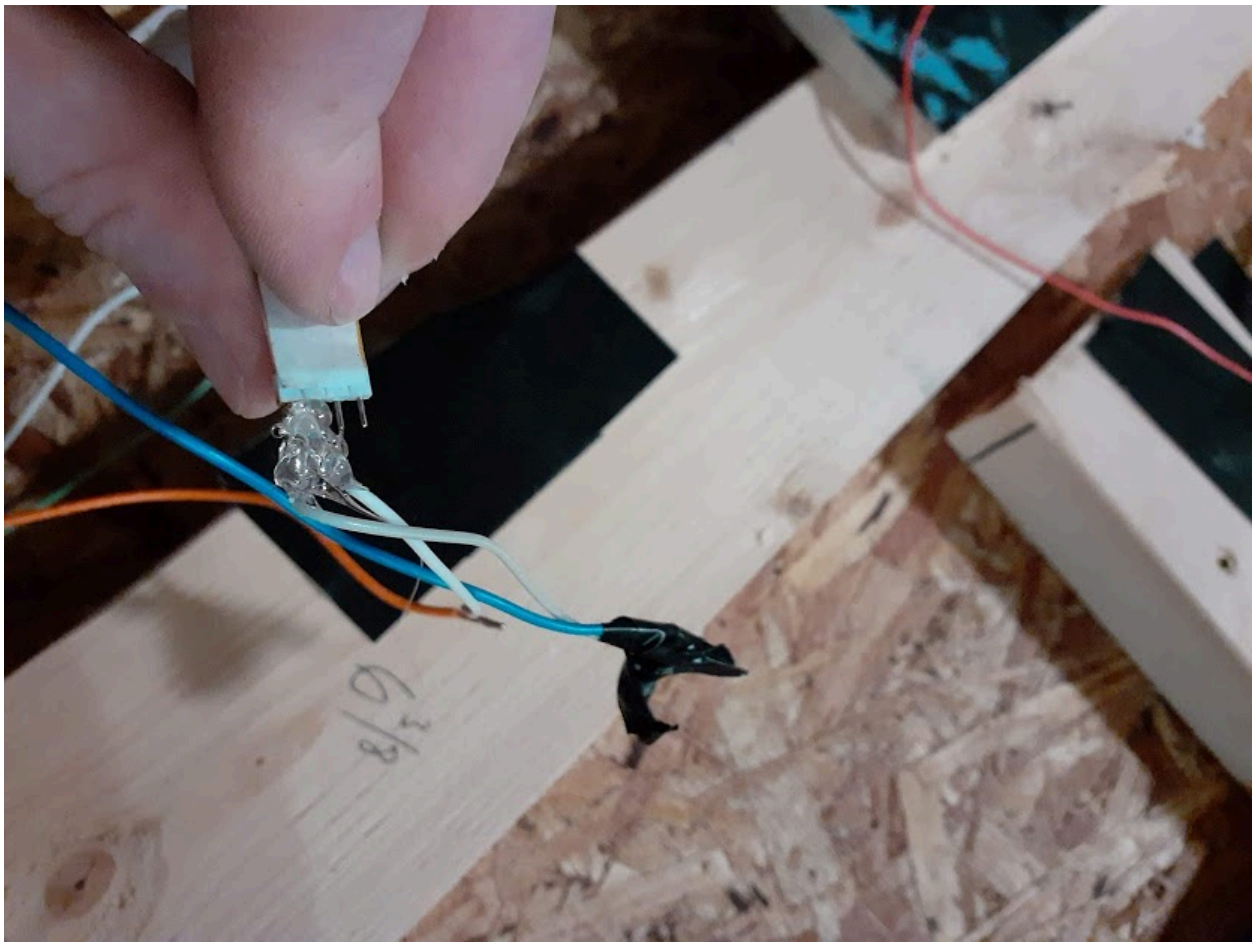


Hope that makes sense

Now onto lights

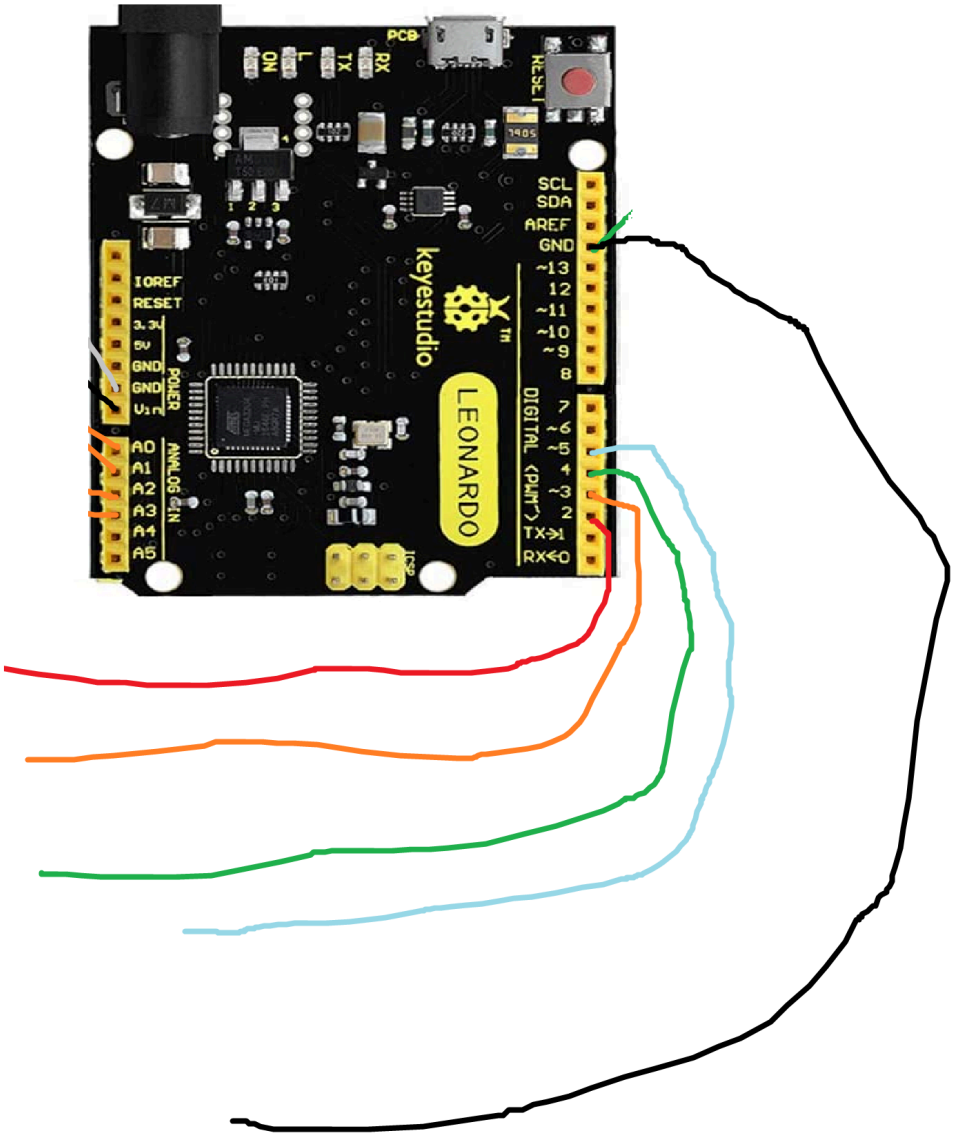
I used 4 led strips in all. I made the wires the same as i did for the fsr. Only difference is that i could not get the project wires to stay on the led pins so i removed the plastic on them and i put them over the pins and solder them inplace. Then i made sure they were not touching and hot glued them





Then u put one led strip under each arrow and hot glued that down

Here is how to wire it into the ardunio. The black goes to the - and the color wire goes to +. The colors i used in the photo match up with the colors i used in the fsr drawing



Next you just screw down the arrows. You might need to play with this some. I found that leaving the screws on the outside loose and the inside tight workers the best

I also used tons of hot glue to hold down the breadboard, arduino, wires and usb cable,

And put some floor tiles behind the pad

Screw the last 2x4down behind the down arrow and put the bar together on top of that

Use thread locking fluid on all the threads for the bar