

Dog Muzzles

Fernanda Ugarte

Define and Explore

Goal: I am trying to figure out a way to make my dogs not bark and be quiet since they bark really loud and for no apparent reason.

Primary Function:

- I want it to reduce noise
- Keep their mouths shut
- Stay on them, not fall off their face

Secondary Function:

- Want it to be comfortable so they can wear it for a long period of time
- Want it so they are still able to drink water from
- Want it to look cute :D

Constraints:

- Size: Must fit to the dogs face, so small, nothing bigger or smaller
- Weight: Must be lightweight so it doesn't weigh down on them since they will be wearing it for a long time
- Units: Does not need to hold anything, just keep my dogs mouths closed
- Build: I will find something to use out of materials that I have, for a prototype maybe a old sock or something, and then will move on to better fabric.

Dog Muzzle Diagram

Small dog muzzle

Stays on the dogs head securely

Prevents barking by lets it
drink water



Basket Muzzle - \$15

Overview:

- Covers the entire dogs nose and mouth with holes to breath from
- Securely buckled to the head
- Good for long term wear

Pros:

- Keeps dog from barking the most
- Safe for long term wear
- Adjustable

Cons:

- Some don't let the dogs mouth open enough to eat or drink

Takeaways:

- Very useful
- Any dog size can wear it and i



Mesh-Type Muzzle - \$8

Overview:

- Clear for dog to be able to breathe through better
- Can cover entire nose and mouth without making it Hard for it to breathe

Pros:

- Good short term
- Adjustable for small dogs
- Still lets dog be quiet

Cons:

- Dog can easily rip it apart
- If it covers the entire face it can't eat or drink

Takeaways:

- Good for short term
- Only good for dog to wear for a short period of time



Soft Muzzle - \$10

Overview:

- Not good for long term
- Covers dog around mouth but still open enough for it

Pros:

- Comfortable for dog
- Still keeps it quiet
- Allows it to eat

Cons:

- Dog can bite it and ruin it
- Not good for long term

Takeaways:

- Not as durable
- Pretty sturdy as a short term solution



Other DIY Dog Muzzles (that don't seem as good)



Takeaway Summary/Thoughts

- Would probably be more of a struggle to make them than buy some
- The basket muzzle seems like the best solution to keep dogs comfortable and quiet
- Most of them covered the dog all around
- Long term ones have metal or a type of leather than makes them more durable
- I want to make a mix of mesh and the basket design
- I will have to take measurements for both of my puppies
- I will have to make the pattern from scratch

Ideate and Design

2.23.21

Key Features

Include Primary Functionalities

Muzzle Area: Will measure the muzzle area and create a pattern for it.

Muzzle Strap: Measure how long the straps should be and figure how to attach to the buckle/clip.

Muzzle Buckle: Figure out what kind of buckle would work for this design as well as the size, must be small to scale with the dogs head.

Include Key Features with names, knowns, and unknowns, approach



Prototype Design

Prototype Goal:

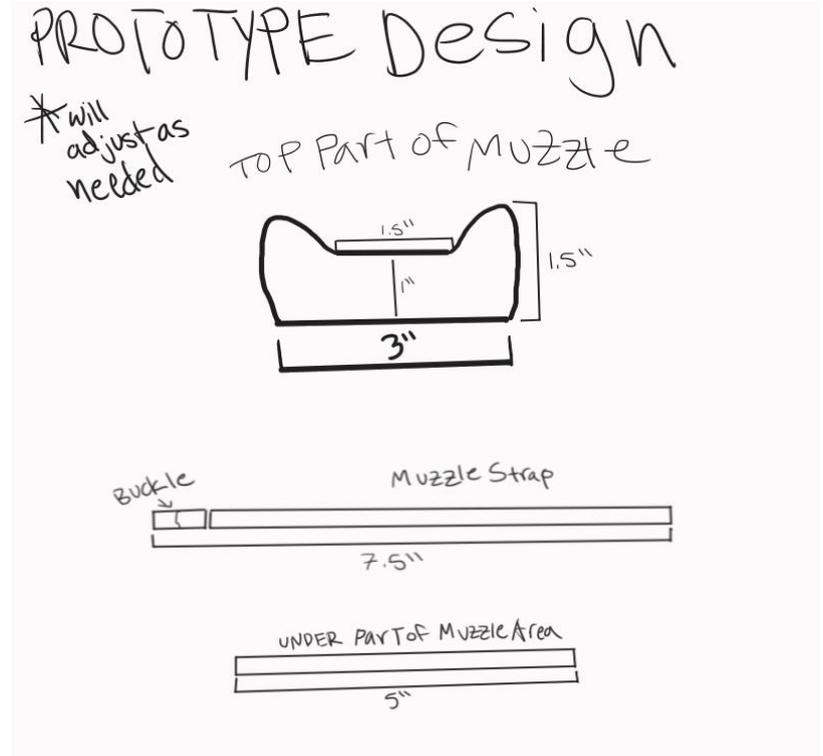
- Pattern works as it should and comfortably around puppy muzzle

Approach:

- Will use a self made pattern and using sewing materials to put it together

Materials:

- Old pieces of clothes and string



Build, Test, Evaluate Prototype

3.17.21

- Fernanda Ugarte

Prototype Build

Approach:

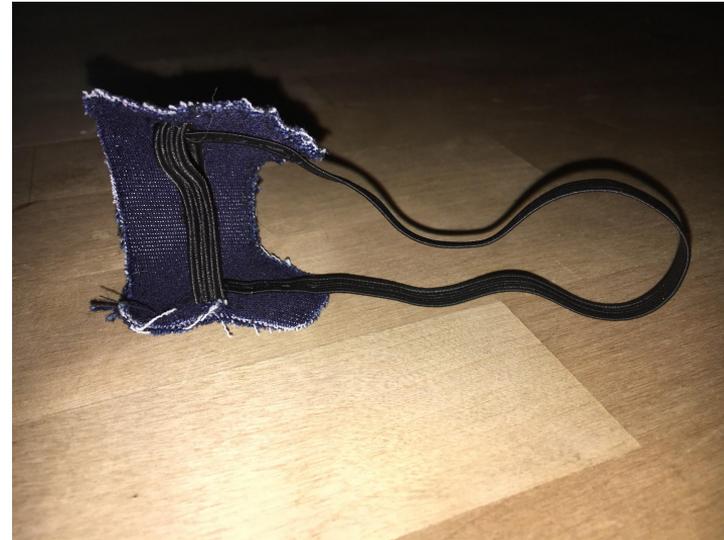
- I started with measuring out my dogs face to get a precise pattern
- I used those measurements to create a pattern that could be used for both dogs
- I made the first prototype out of this pattern using supplies I have at home
- I assembled it and tried it on both dogs

Something I liked:

- I made out the measurements to be a good fit which means I don't have to redo the pattern

Something I will not do again:

- Use a stretchy material for straps because it does not prevent the dogs from barking



Prototype Test 1

Test objective:

- Does it fit on correctly to the dog's muzzle:
 - Measurements don't need to be changed
 - Is a comfortable fit

Test method:

- Create prototype and put on dog and tailor it if needed

Test criteria for success:

- Muzzle fits comfortably
- It won't slip off dog face for being loose

Evidence: (see video/pictures)

- It fits on them comfortably for both
- Does not require much change



Prototype Test 2

Test objective:

- Prevents Barking
- Doesn't force mouth completely shut
- Lets them drink water

Test method:

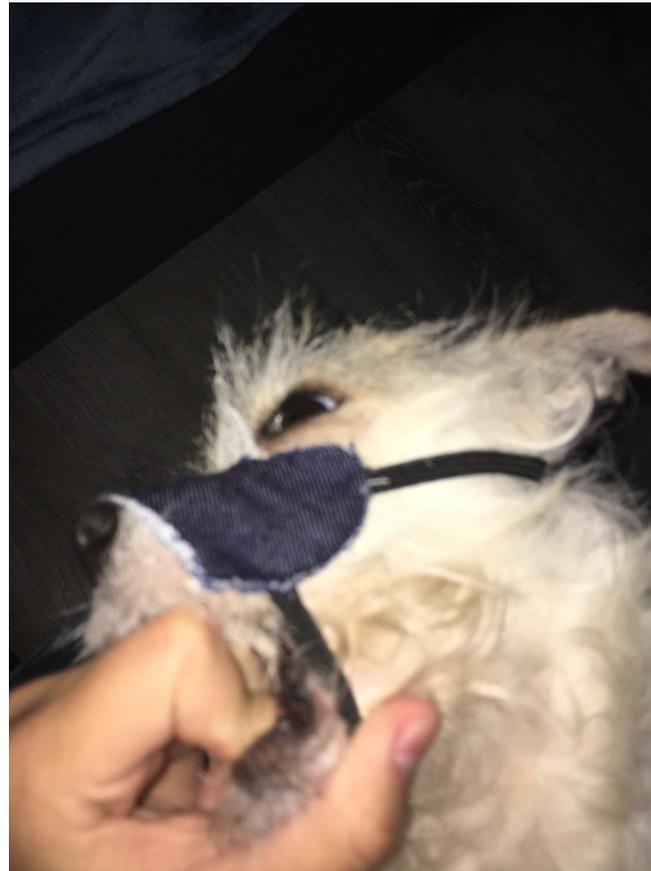
- I left it on them for a bit to see if they would bark and opened their mouths to show how much space they have

Test criteria for success:

- Doesn't let mouth open wide as shown
- Doesn't force mouth completely shut

Evidence: (see video/pictures)

- Does cover muzzle
- Doesn't prevent barking



Phase 1 Prototype Evaluation

Aspects of my prototype that I like:

- I like that it fit for both dogs
- It was a good pattern I made

Aspects of my prototype that I did not like:

- The stretchy string for the mouth doesn't work in my design
- The raw edges of the main muzzle area needs to be cleaned

Improvements for the next iteration

- Work with better materials such as thicker cloth for the muzzle area so the edges don't look messy
- Change the stretchy string out
- Add in a clip that can be adjusted for the straps so it is more comfortable





The Final Draft:

By Fernanda Ugarte

Design

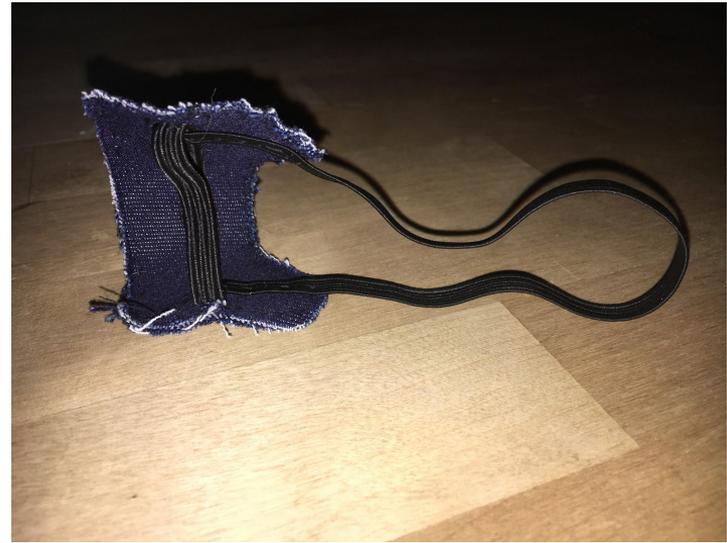
- For the final design I switched out for better and more quality materials:

Nylon, tri glides, mini clips, and a soft material to add more comfortability

I was able to make it look more professional and neat, just how I wanted it to. I also added in a velcro feature in order to secure the extra adjustable strap from sticking out.

- It has served the purposes that I was striving for.

Before:



After:



Build (All hand-sewn)

- Steps Taken: Prototype for measurements,
Switched to more durable comfortable material
- Went good/Bad:
Triglides worked well as well as the velcro
Nothing went bad, only figuring out how to make it adjustable and use the triglides correctly

Velcro add on to keep extra nylon strap in place

Adjustable head strap (also nylon)



Tri-glides for adjustability

Under padded muzzle cloth for comfort

Mini clip to keep strap in place on dogs head

Testing

I tested out all the following functions:

- Comfortability: the muzzle area
- Adjustability: the triglides
- Able to keep dogs from barking: the wrap around the muzzle
- Neatness and presentation: the stitching of everything
- Durability: the materials used
- Criteria for all this to work:



Testing this on the dogs over a couple days to test them as they are the ones to wear it :) all worked fine, only side effect: sadness wearing it

Evaluation

Summary: The overall process was very nice to learn and can be applied to many things. From creating my own pattern that fit both my dogs well to making the first prototype of it. Seeing what could be improved from that first design made me very happy with the final design.

Likes/dislikes: The neat and sleek design that fits perfectly on both dogs. It is adjustable and wont prevent them from drinking water. It hit the mark on pretty much all of my primary and secondary functions. What I dislike about it is that it makes my puppies sad when I have to put it on them.

I rate it
10/10

