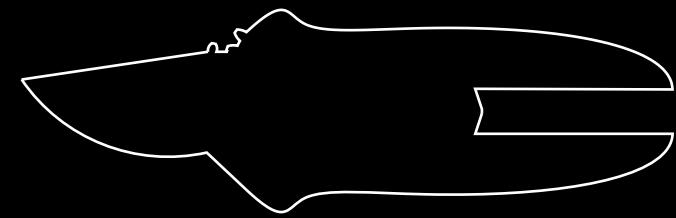
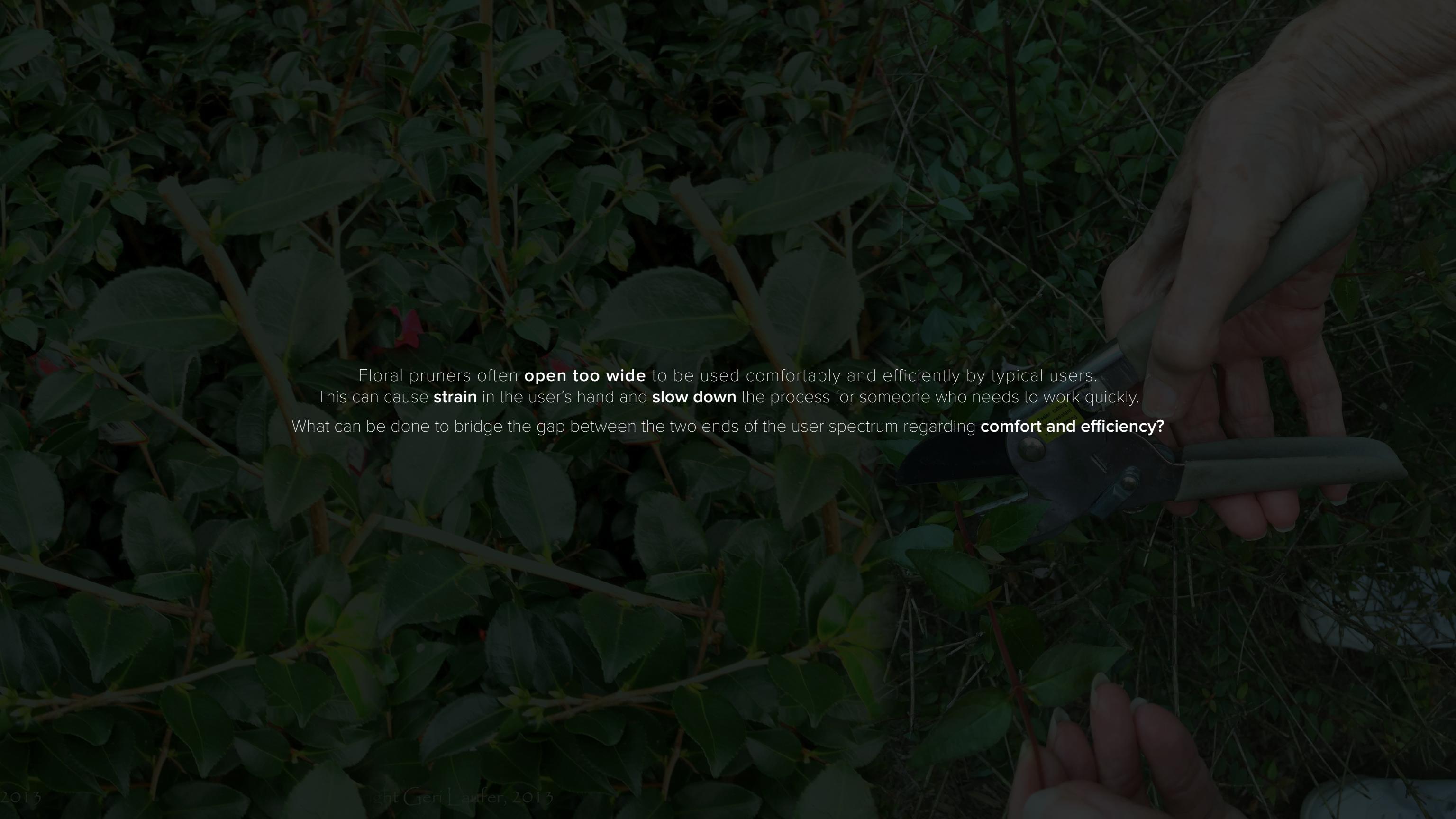


Fiskars Floral Pruners

designed to improve comfort and efficiency



A close-up photograph of a person's hands using a pair of black floral pruners to trim a dense green bush. The hands are positioned at the handle of the pruners, which have a textured grip. The pruners are cutting through a thin brown stem. The background is filled with the dark green leaves and branches of the bush.

Floral pruners often **open too wide** to be used comfortably and efficiently by typical users. This can cause **strain** in the user's hand and **slow down** the process for someone who needs to work quickly. What can be done to bridge the gap between the two ends of the user spectrum regarding **comfort and efficiency**?

“If we understand what the **extremes** are,
the middle will take care of itself.”

Dan Formosa
Smart Design

Source: *Objectified*, Documentary

USERS

Barbara and Kristen represent the extremes regarding usage, age, and time constraints.



Barbara

Retired School Teacher

*"I love gardening in my spare time but I can't seem to get my hand around the bloody things anymore; **they're too wide for me to hold on to.***

A good pair of pruners that are easy on my hands would make all the difference."



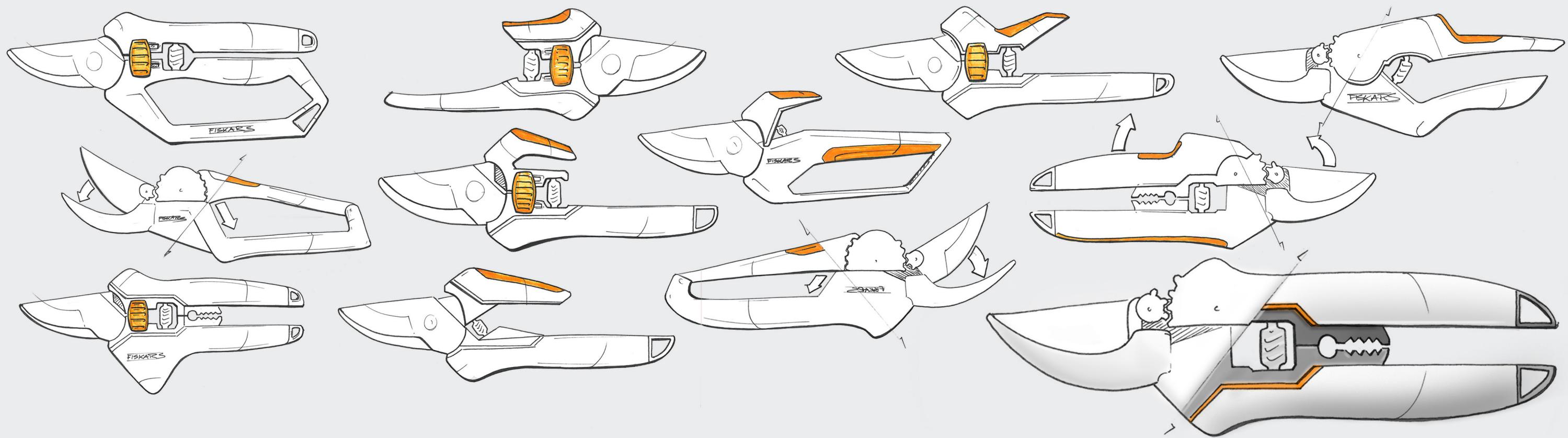
Kristen

Florist at Norman Florist

*"Being a florist, I use my pruners the most out of any other tool. Often times, the shop gets so busy! In order to be efficient **I have to work quickly**, but after a while my fingers get tired from the constant opening and closing of my hand."*

IDEATION

Three general concepts were explored with the intent to provide a more comfortable handle design. The decided direction uses a big to small gear ratio to limit the distance the handle has to travel as well as providing quickness, which is ideal for florists.



PROTOTYPES

Once a final design was reached, I quickly jumped into 3D modeling. The use of SolidWorks and laser cutting allowed for rapid iterations.

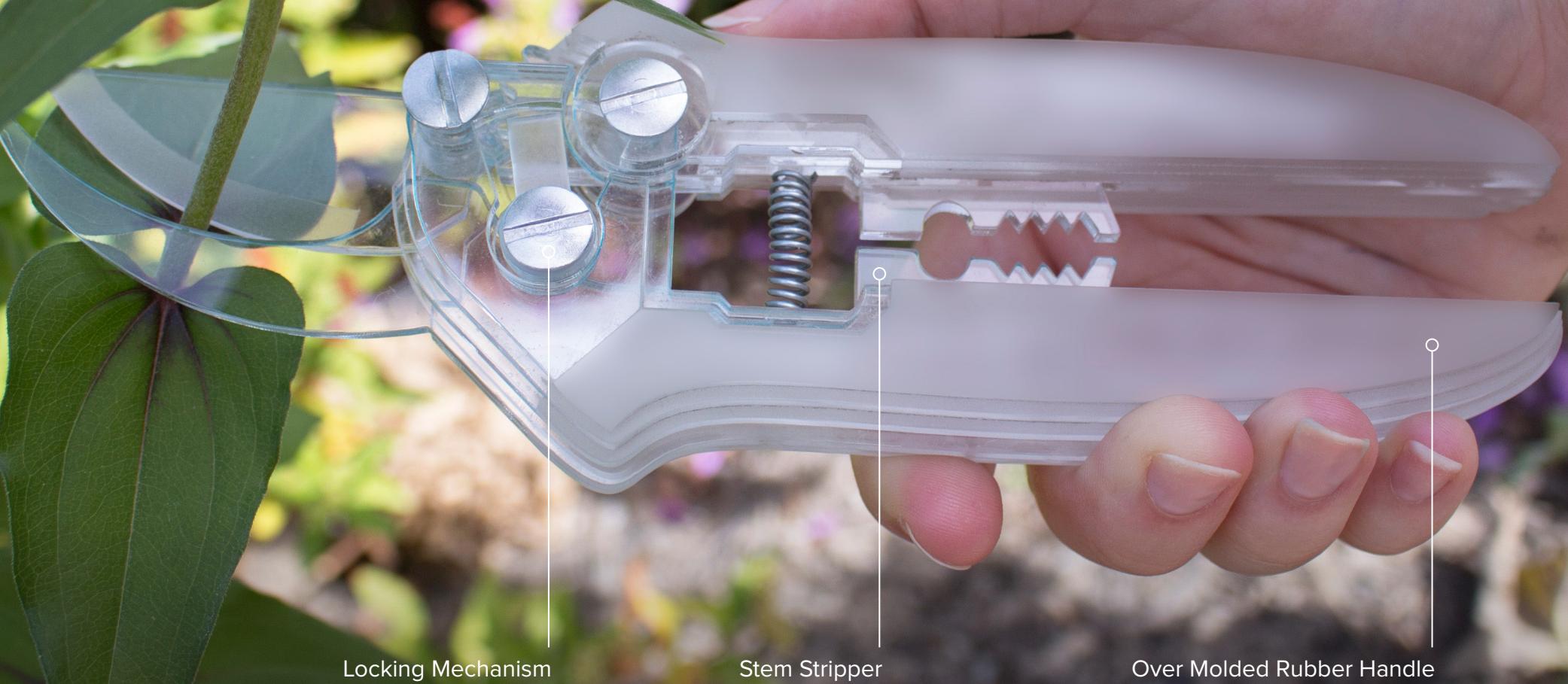


Version one is a test to make sure the **mechanism** works properly.

Version two develops the **ergonomics** and **aesthetics** by offsetting each plane.

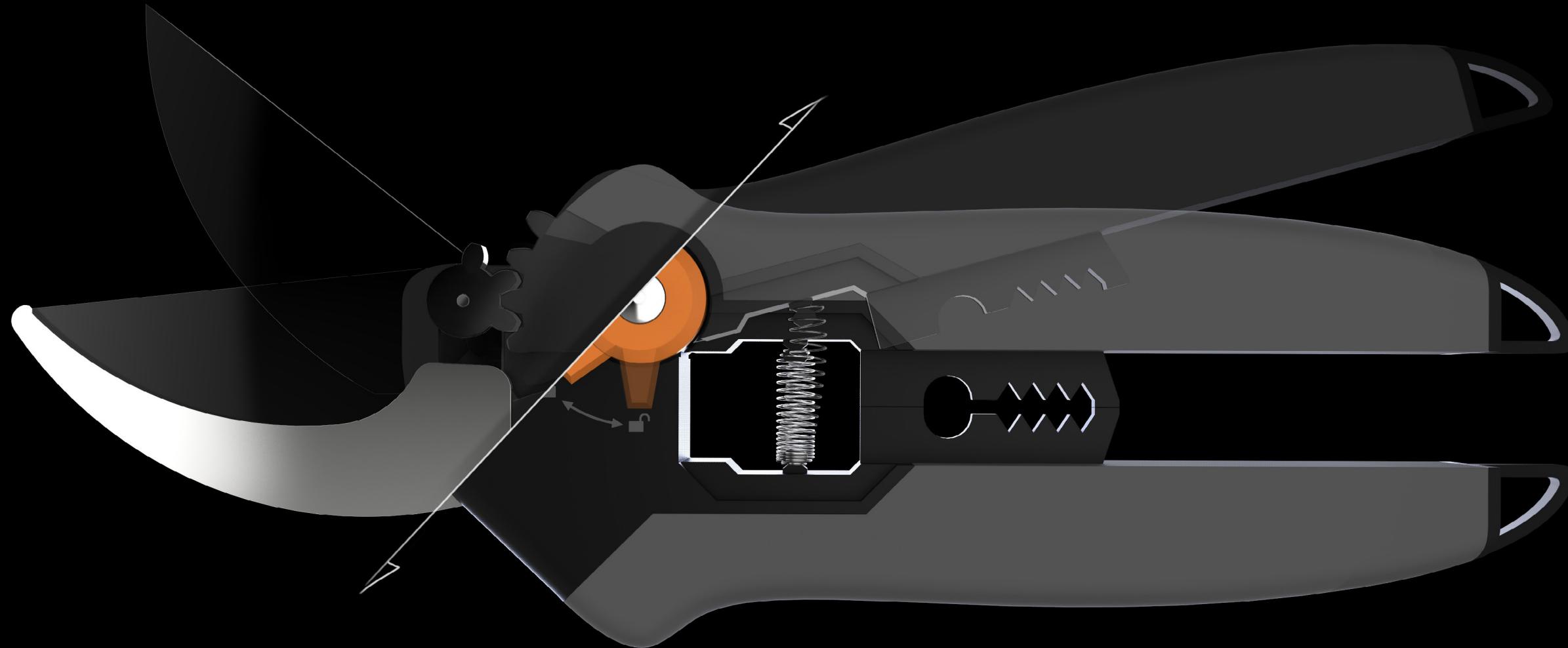
Version three explores the idea of a smaller top handle **just for the thumb**.

FINAL PROTOTYPE



SECTION VIEW

A big to small gear ratio allows the blades to open full width while the handle only needs to travel half the normal distance. This ratio makes the pruners very quick as well, which is ideal for florists.



DETAILS

Fiskar's orange was used sparingly and thoughtfully to call attention to the locking mechanism, the main interaction point for the user. It was also used as an aesthetic detail for the backing that secures the pin which attaches the top handle to the main body.

