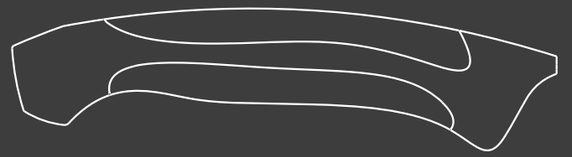
Staple Hammer

Arrow Fastener staple hammer redesign



WHAT ARE WE WORKING WITH HERE?

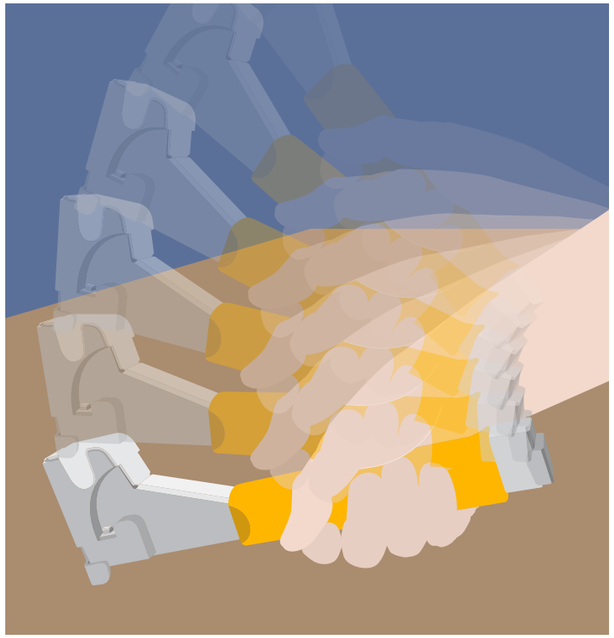
Staple Insert

Hard Plastic Handle

Signature Chrome Head

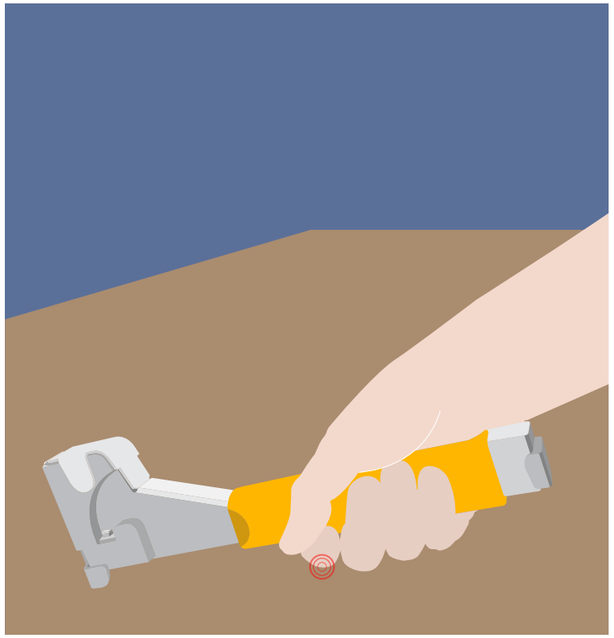
Staple Exit

TASK ANALYSIS



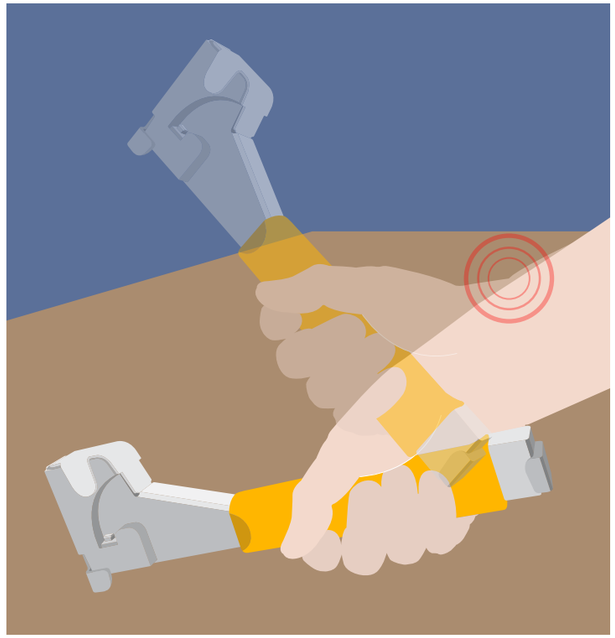
SPEED

Staple hammers are generally used for hanging roofing felt and putting up tyvek. These are scenarios where **speed** is important, and **accuracy** is not.



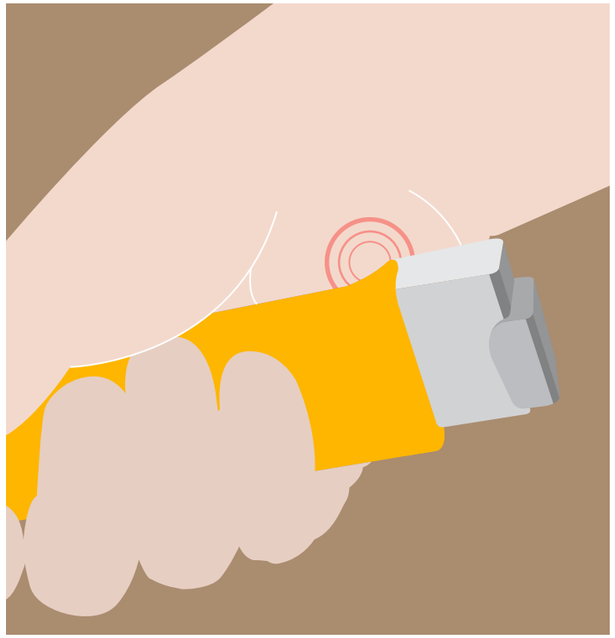
POINT OF CONTACT

The hammer makes contact with the surface at an **angle** because of the **natural motion** of the swing and the user's **concern** of smashing their fingers.



MOTION

Because of the handle's short length, the user has a tendency to use their **wrist** instead of taking advantage of their whole arm.



COMFORT

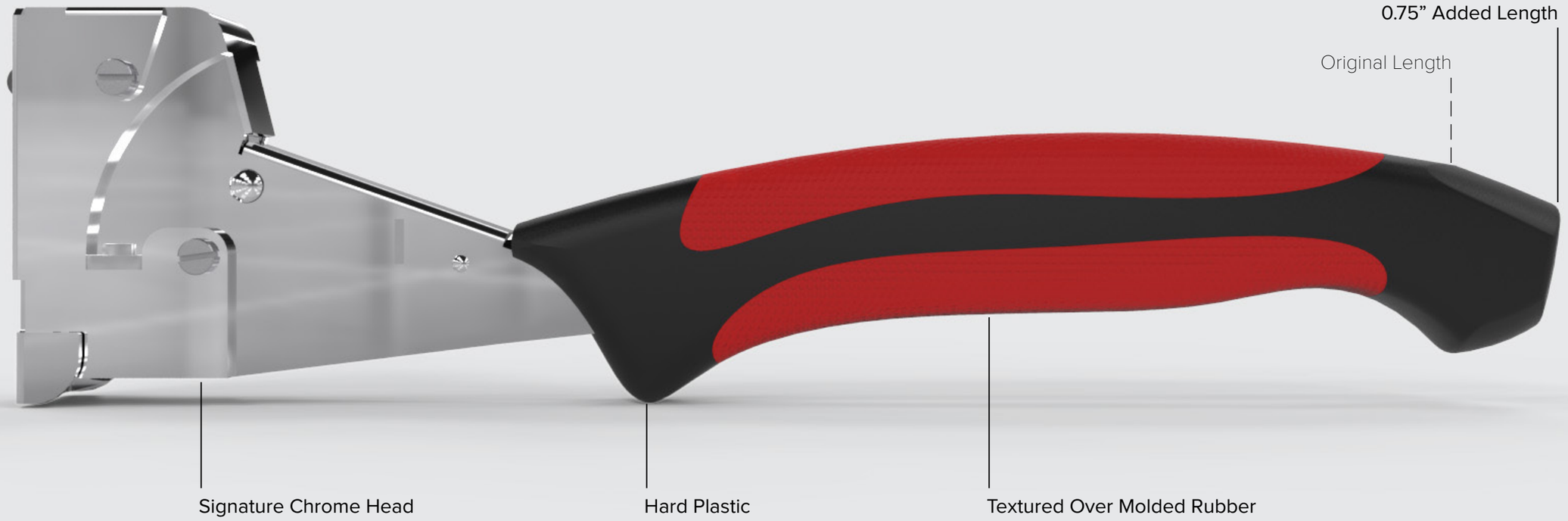
An instinct to grab the staple hammer further back than its handle allows results in **discomfort** in the palm of the user's hand.

IDEATION

Upon completion of the task analysis, I began to ideate forms that address the apparent problems.

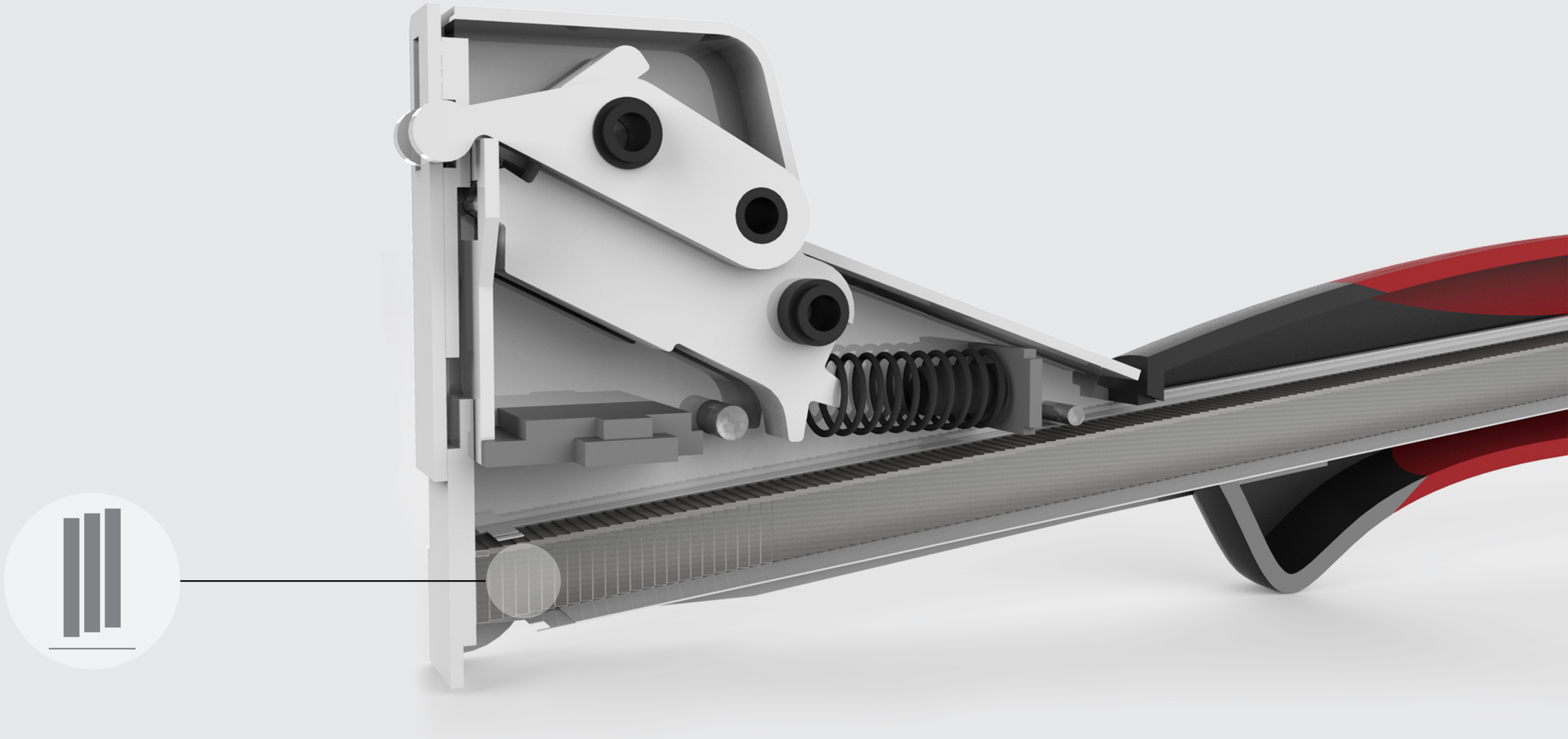
DETAILS_001

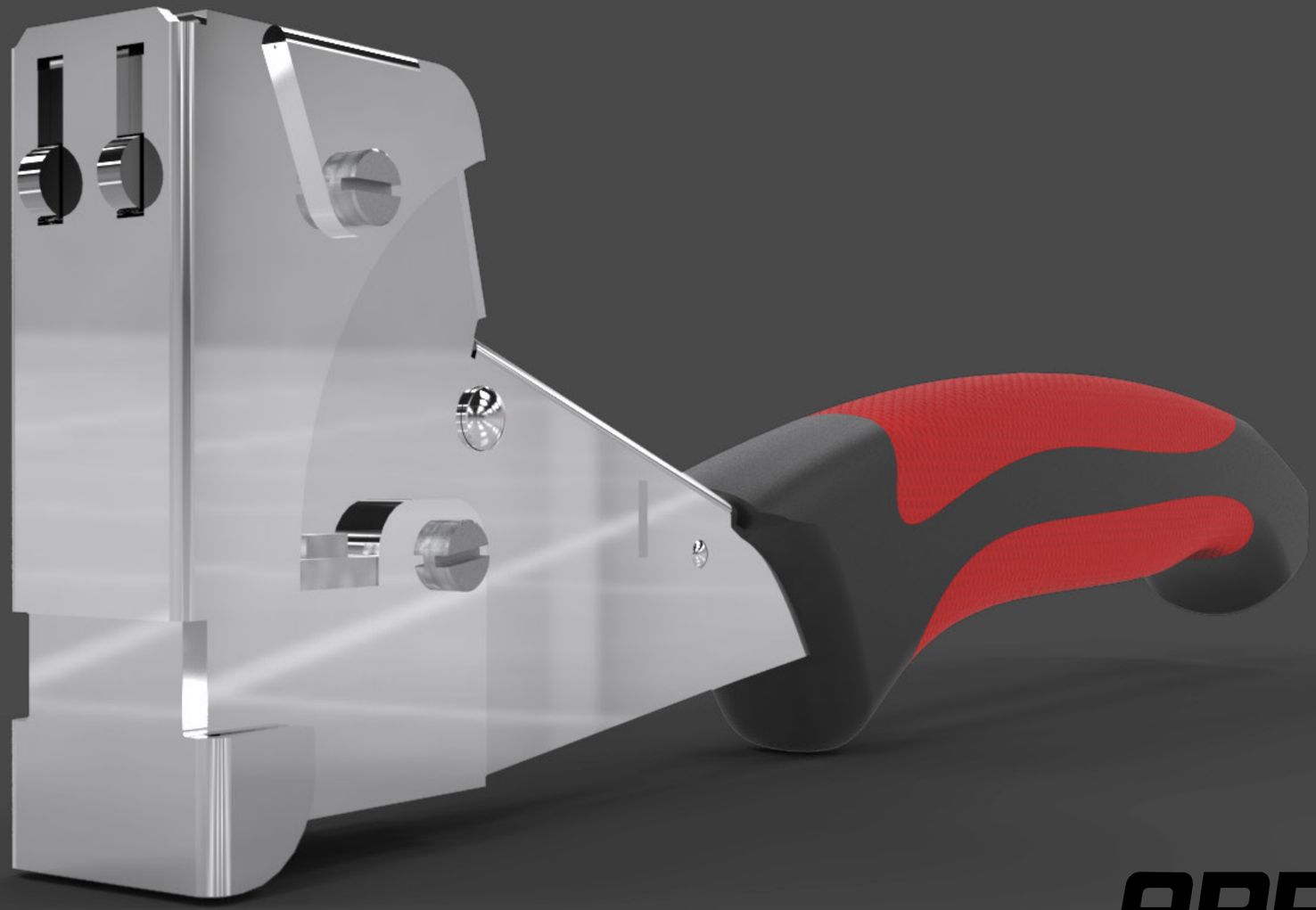
The handle was elongated to reduce wrist strain and increase comfort. The subtle elevated angle of the handle creates breathing room between the user's hand and the point of contact.



DETAILS_002

In order to see how the mechanism works, the staple hammer was taken apart and modeled in SolidWorks. I was then able to make decisions such as the ream of staples being fed at an angle while remaining perpendicular to the point of contact.





ARROW

HOW IT ALL COMES TOGETHER