

# MULTI-TOOL



# Brief

*"Build an easy to use multi tool for the brand Husqvarna motorcycles. The tool is going to be small enough to bring when you're out riding, but still contain the most important tools for your bike."*



# Problem

The first problem I discovered was that the tools you need the most when working on your bike are always missing or hard to find in your toolbox. The second problem was that there is no product that you can bring with you when are out riding that just contains the most important tools for your motorcycle.



# Tools To Include

After looking at the bike and interviewing motocross riders and a motocross-shop and team owner it was clear that the tools most often used on motocross bikes are:

Wrench sockets:

6mm

8mm

10mm

13mm

Screwdriver

Star screwdriver

Torx size 20



# Sketches and Models

The first idea was to have the handles flip down to be as a cover for the tools. I realized the design was way too big, complicated and hard to use.



The new design was a lot smaller and easier to use. The handle would still work as a cover for the tools but would now be taken off making the tool smaller and more convenient to use. This design worked really well both in its function and how small and narrow it was.



Now the tool worked as I wanted but it still had to be designed in its form. I looked at the radiator cover (the part where the logo on the bike is) and made an illustration of the multi tool inspired by that part. The design was still a little bit two dimensional.

I looked closer on the radiator cover and its three-dimensional shape and found three lines that I wanted to have in my design as well. I made some simple form mockups in foam.



# Final Product

The final 3D printed Prototype is a really narrow and small multi device with all the most important tools for your Husqvarna motorcycle included. It is easy to bring both for riders going out riding and mechanics helping their riders on the motocross track.

It has a convenient way of getting the tools in and out. The tool connects to the brand and you can clearly see how it belongs to the bike.



