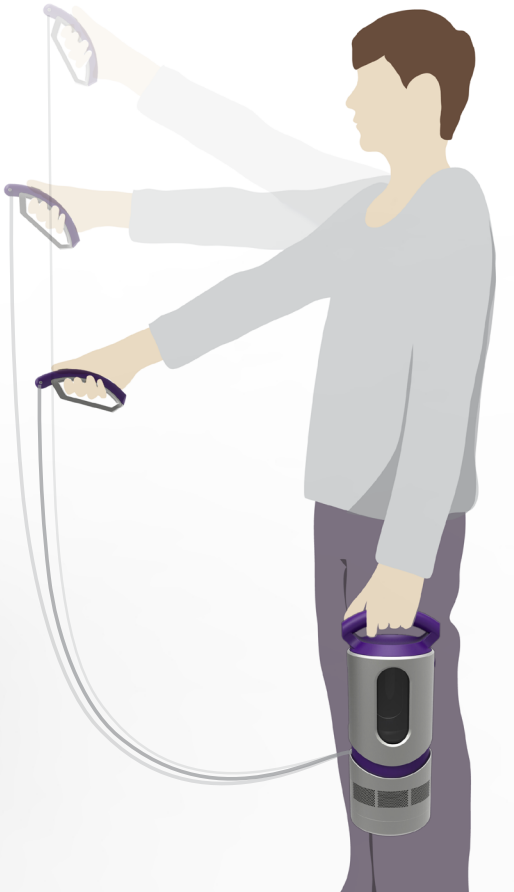
dyson

Paint Sprayer

This is a home maintenance paint sprayer designed for Dyson. This project is a branding practice, which put emphasis on visualization strategies.



MARKET ENTRY DEFINITION

What can be next?

Dyson is known for moving air and fine working machinery.
A home use paint spray gun is a good candidate to become the next member of Dyson family.

How can a home maintainance paint sprayer benefit from Dyson's Technology?

Air technology

Professional spray gun use about 10-15 CFM to break up paint and get the best atomization. Dyson is known for moving air, all their products take advantage of airflow to achieve high-performance. The spray gun can use Dyson's air technology to get paint break up power.

Ball™ technology

The compressor need to be able to follow you easily. Wheeled compressors can be awkward to steer and can make you work a lot harder than you need to. Dyson Ball™ technology is a radical alternative to fixed wheels.

Air blade

Spraying requires Clean (oil free) and Dry (water free) air. To avoid over spray it also require the airflow to be uniform and concentrates. These features are quit similar with Dyson's air blade.

Dyson digital motor V4

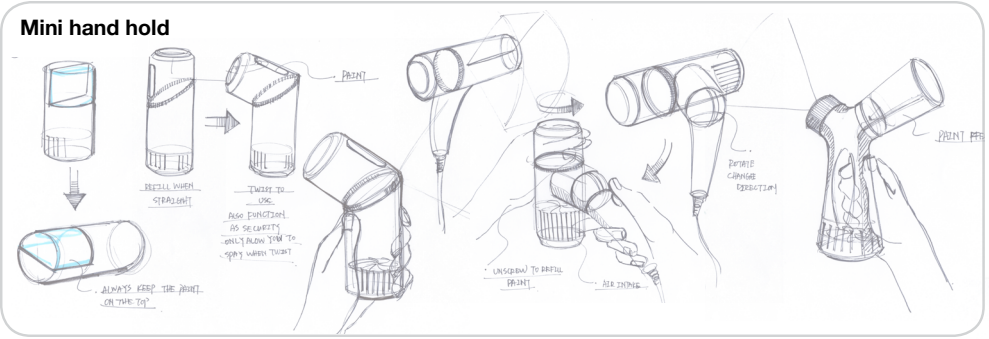
Paint guns usually operate at very low pressures but require a high volume of air. The Dyson digital motor V4 spins at 92,000 a minute - generating enough power to draw in 28 liters of air per second. This allow the compressor to draw enough air and reach a ideal pressure quickly.

Laser cutting technique

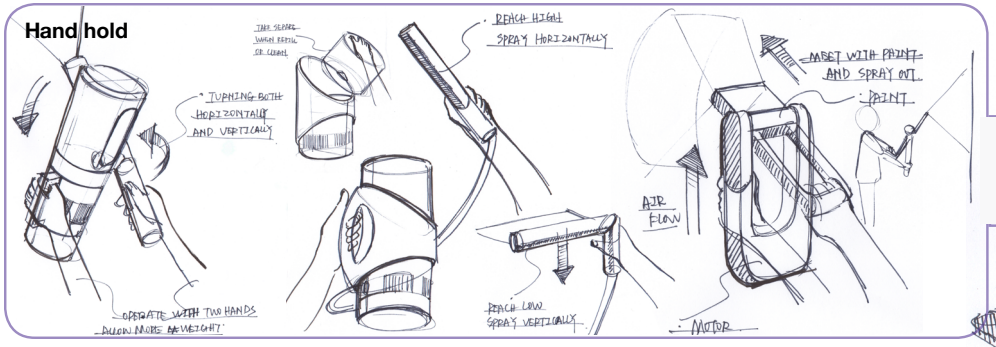
Dyson is also known for using Laser cutting techniques to manipulate marine grade steel. This allow the spray gun to have a cleaner appearance compare to other exiting products.

CONCEPT IDEATION AND CONCEPT REFINEMENT

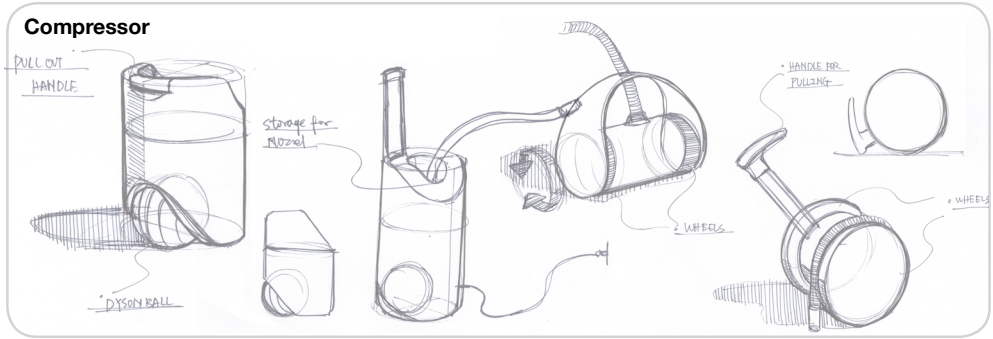
Mini hand hold

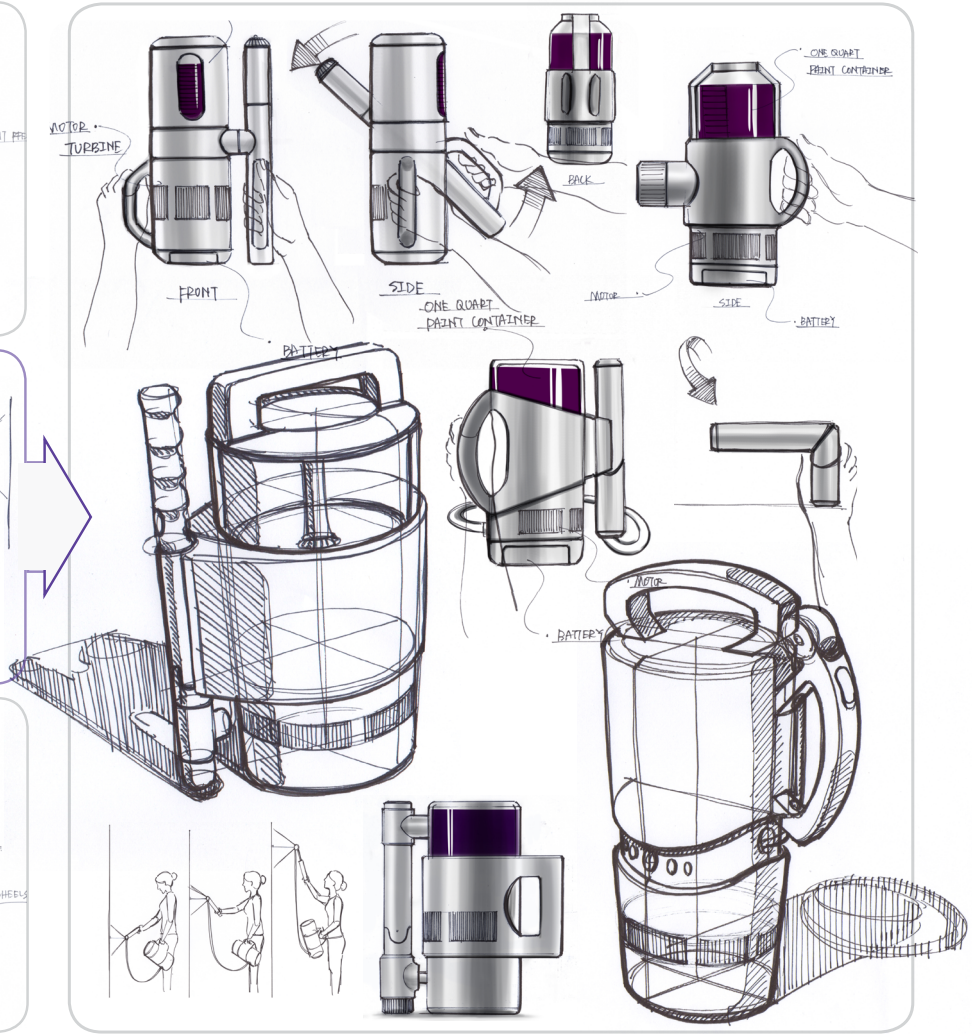


Hand hold



Compressor





STUDY MODEL

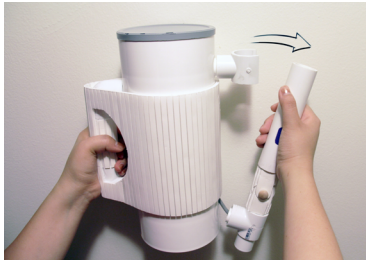
Concept 1

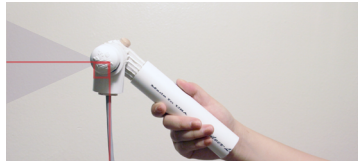
Prons:

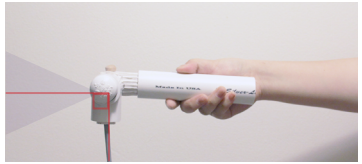
- The stick nozzle can be fold and used like a paint roll.
- The transparent paint can allow the user to see how much paint is left easily.
- The overall design is clean

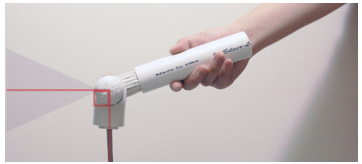
Cons:

- The nozzle and the main body does not looks like they belong to each other.









Concept 2

Prons:

- The nozzle does not require additional user task
- The overall design looks constant and creative.
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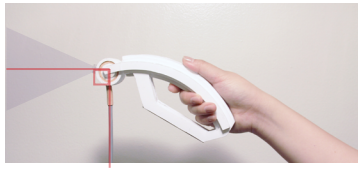
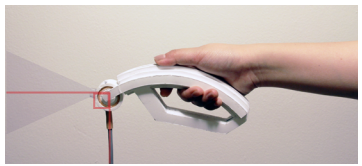
Cons:

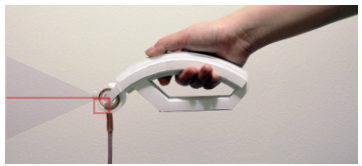
- The paint can is covered so it needs a see through window.

This concept is selected since:

- **It fits in Dyson's design language better.**
- **It require less user task**



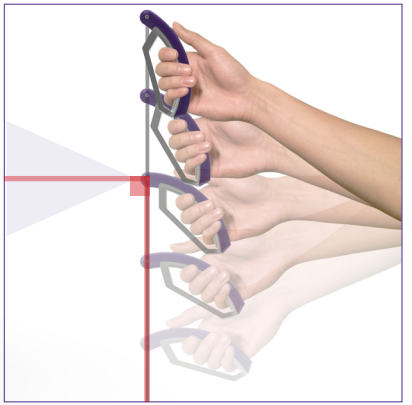




FINAL CONCEPT

Slide the side button down to release the paint container. Pull the container out for easy refill and clean.

Lift up the nozzle attached to the side wall with magnet and pull out the pipe line to appropriate length.



Pull out the pipe line from the slot. The weight of the pipe line will keep the nozzle always perpendicular to the surface.

After use, plunge in the charge line to charge the battery at the bottom.

FABRICATION

Review prototype plan, model construction and shop packet and gather all appropriate materials.

All parts painted with primer, sanded, filled and secondary/final primer coat.

APPEARANCE MODEL