

COLLABORATION

The Dyson 360 Eye™ robot vacuum is a complicated piece of technology. While the initial concept was developed by design engineers, it takes the combined work of a variety of engineers with different skills and specialities to make the machine a reality.

Robotic and software engineers:
Develop the vision system that allows the Dyson 360 Eye™ robot to know where it's been, and where it's yet to clean.

Aerodynamic engineer:
Map the flow of air around the machine, spotting blockages – making sure the air flowed as efficiently as possible.

Electronic engineer:
Engineer how to transfer power from the battery, to where it was needed.

Fluid dynamic engineer:
Ensure fluid performance of internal and external processes in the machine.

Acoustic engineer:
Engineer the noise of the machine, employing insulation and other tricks to make it quieter.

Material engineer:
Research and advise on which materials should be used.

Manufacturing engineer:
Engineer how the machine would be made – defining the best way to manufacture every component.

Mechanical engineer:
Work out how to transfer power to the brush bar and tank tracks.

Motor engineer:
Design the motor that draws in the air and dust – while analysis engineers validate the motor design.

Design engineer:
Design what the machine will look like accounting for design factors such as the size of the motor, wheels and battery.

REVOLUTION

As inventors Dyson engineers pioneer and embrace failure. They push boundaries to form revolutionary new ideas.

Engineers found corded vacuums were cumbersome for many users. To solve this they invented an entirely new type of cordless vacuum cleaner, that cleaned more efficiently.



ITERATION

Engineers are problem solvers. They use the iterative design process to develop new ideas. Iterative engineering is a cyclic process that positively accepts failure in order to develop better technology.

BRIEF

SOLUTION

