

Smart House: Go Green

Minimizing Human Impact on the Environment

Automate an aspect of your home to make it easy to be environmentally friendly!

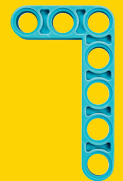


Think like a scientist:

What are some ways that human homes impact the environment?

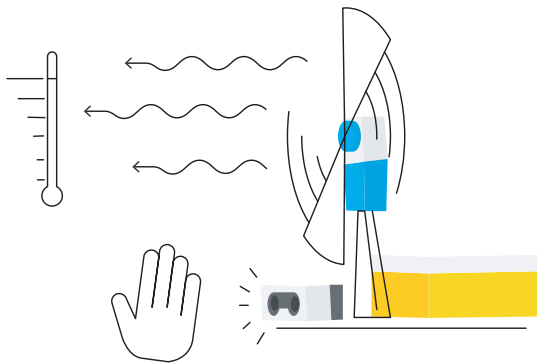
Think like an engineer:

What process will you follow to optimize your design's performance?

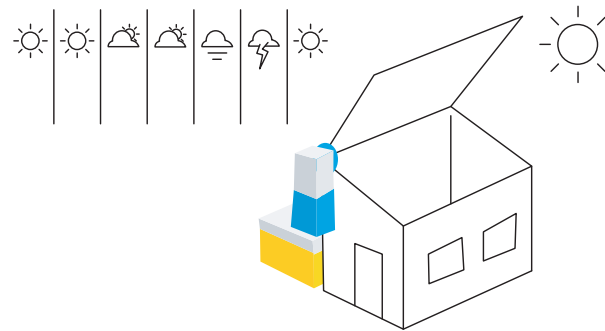


Example Ideas

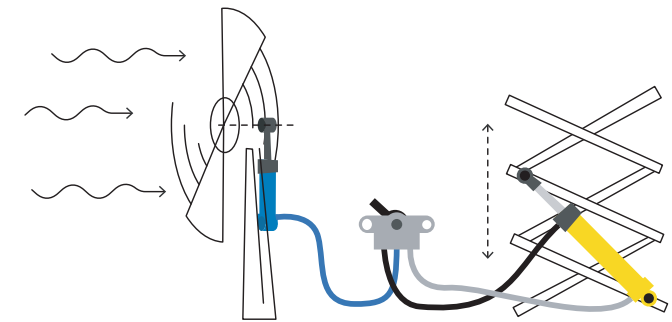
How will you use motors and sensors to automate an action?



Turn off the fan if you move away.



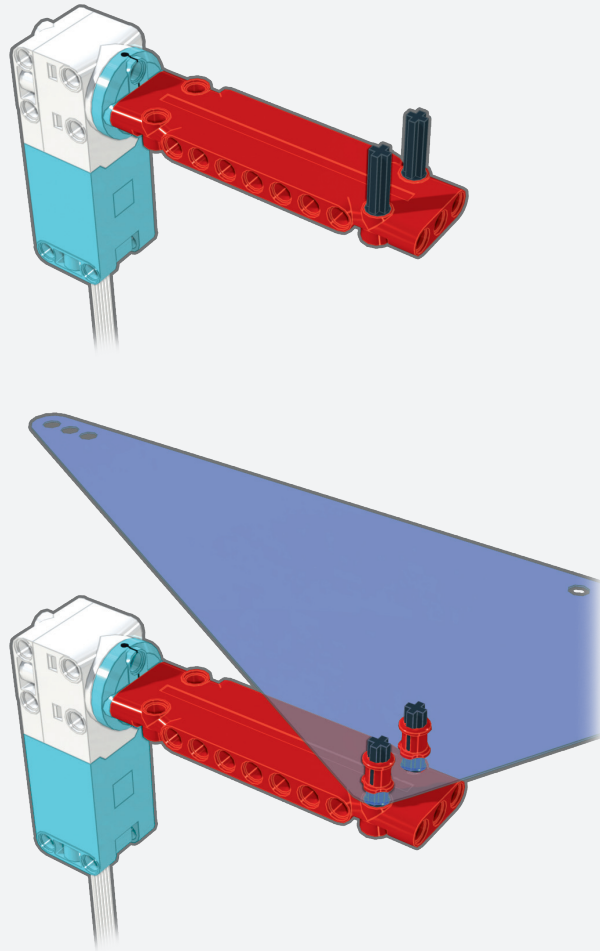
Open/close the window in particular weather conditions.



Convert and store enough wind energy to make something move.

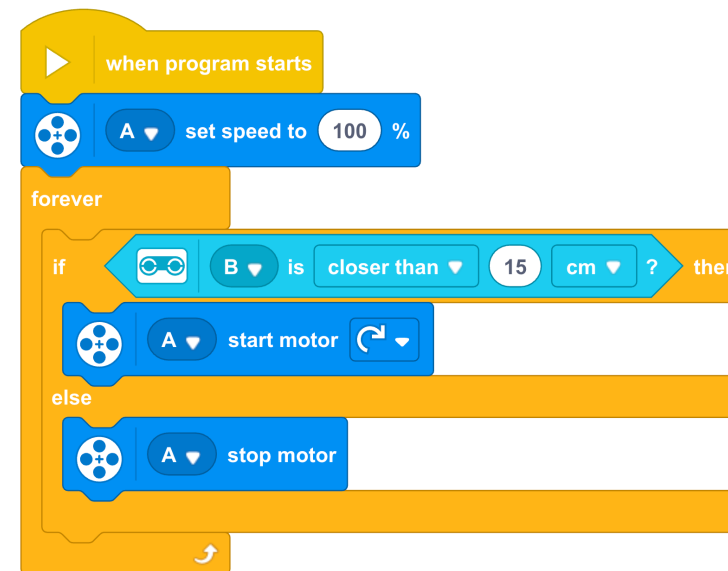
Build it!

How will you attach the panels to your model?



Code it!

Sample program for the distance-sensing fan:



Describe it!

What input is being sensed?

What output should happen as a result?

Modify it!

Can you add another condition for the fan to turn on or off (time, outside temperature,...)?

Challenge yourself!

Create an advertisement to convince someone to install your invention in their home. Base your messaging on the invention's positive impact on their daily life and the environment.