

## CAN WE BUILD A MACHINE THAT USES WIND TO LIFT A 50 G WEIGHT?

The kinetic energy of the wind is the mechanical energy held by a particle of air due to its moving speed. It depends on the mass of the moving air and its speed. When the wind blows over a surface, such as a wind turbine wing, it transfers its kinetic energy to that surface, which can then convert it into usable mechanical and electrical energy. The kinetic energy of the wind can be captured and converted into electrical energy through technologies such as wind turbines, which use turbines to capture and convert this energy into electricity. This energy can be used to power buildings, cities and entire electricity grids.

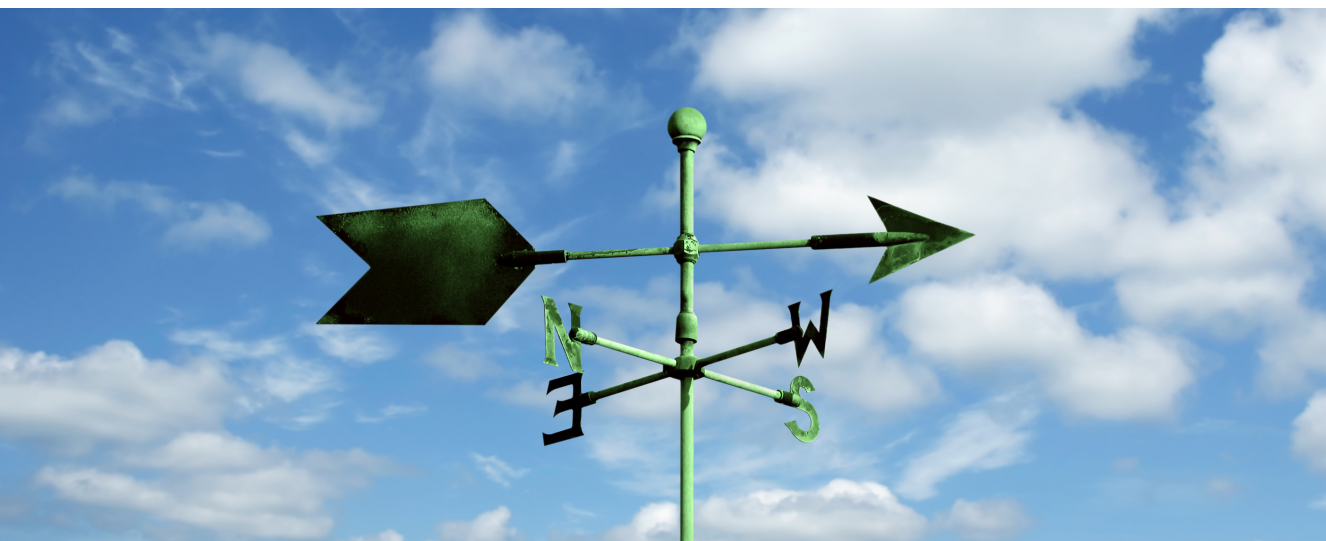
**Can you develop a solution to understand the force of the wind and how it can be used to lift a given weight?**



Name your team / Name of the participants:

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## INVESTIGATION

Describe the steps needed to answer your hypothesis. You could use the following steps as a guide: collect the data and use sensors, display the data, make it accessible, analyse the data and conclude, use the data to propose one or more solutions.

Identify the knowledge mobilised during this phase, identify the learnings aquired, reflect on what you have gained as competencies, knowledge and skills.