

# Faster Than the Wind

Wallace, Elizabeth (School: Northwest Technology Center)

Since the earliest alchemists claimed to turn lead into gold, there have been inventors that have discovered free energy or a system to harvest energy for seemingly nothing. The "Blackbird" car is a vehicle that is powered only by the wind but is supposedly able to outrun the wind that is pushing it. This stands in opposition to the law of conservation of energy. However, according to physics Professor Alex Kusenka et al., this physics-defying vehicle does work. So can the theory be put to the test and find if additional force is created by the vehicle? This vehicle was built according to the instructions in Xyla Foxlin's video. The car was placed on a treadmill to measure velocity, and attached to two scales, one in front and one in back, to measure forces in both directions. The vehicle was also placed in front of a high-velocity fan. The forces from the front and back were measured at different ground speeds of the treadmill, each combined with four speed settings from the fan: high (12.88kph), medium (11.27kph), low (9.65kph), and no fan. It was found that there was a .994 positive correlation found between the speed of the car and wind speed. Without the fan, however, the car not only didn't gain energy or ground, it lost it, resulting in negative results for force. This data suggests that this car does not create its own energy.