Windy Wakes

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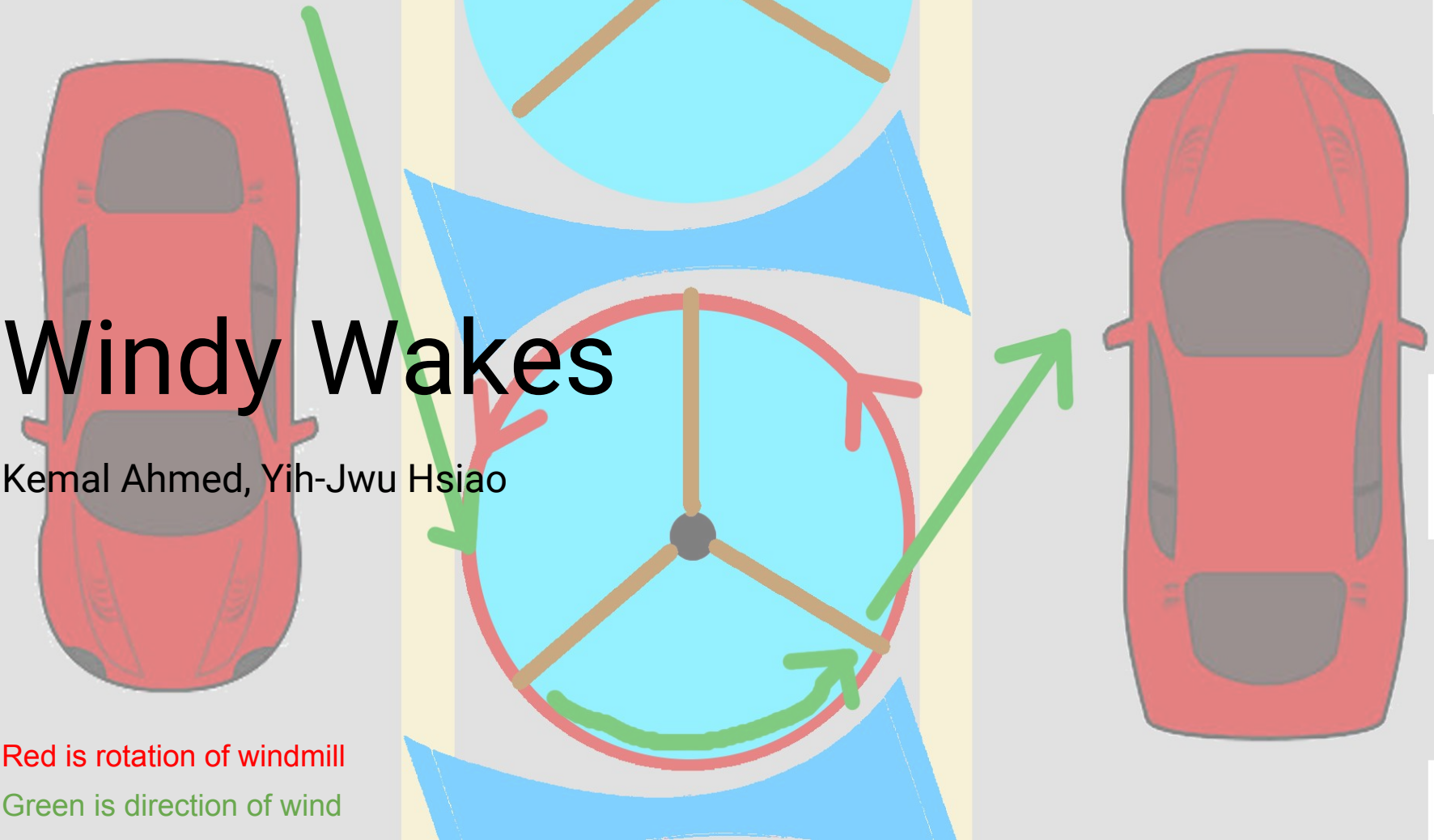

Red is rotation of windmill

Green is direction of wind

Problem

- Cars use 2.6% of their fuel pushing drafts of wind
- There are few locations to place windmills in cities
- Some cities don’t have much natural wind
- Windmills don’t generate much power below a certain minimum wind speed
- Most vertical windmills are inefficient
- Wind gusts that bounce off the meridian create turbulence

Solution

- Vertical windmills in the middle of highways generate electricity from both directions at the same time.
- Barriers between each windmill prevent the windmills from interfering with each other
- The windmills and barriers redirect vehicle gusts to the opposite direction, speeding up opposing traffic
- Using savonius windmill blades is only inefficient when you don't have a constant wind direction, but this has a constant wind flow in one direction from the cars

Additional Details

- Open sourced barrier design to prevent interference between different windmills in an array
- kWH per windmill
- See the Streetmix diagram for a better view of the street view above
- Would be most useful where there is highway with no shoulder