Claim

1. An unmanned aerial vehicle comprising: four propeller shafts arranged horizontally in a diagonal direction to extend from an airframe; four propellers, each comprising two blades with a folding mechanism; and gears that transmit the rotation of an engine to the propellers;

wherein the four propellers are all positioned at the same height relative to each end of the respective propeller shafts, wherein the adjacent propellers have overlapping rotational ranges, wherein the propellers are mounted at a 90° offset mounting angle from each adjacent propeller, and wherein the adjacent propellers rotate in opposite directions;

wherein the folding mechanism comprises a knob, a spring, a pin, and a rubber damper that surrounds the pin, wherein pulling the knob to release the engagement between the pin and the blade allows the blade to rotate around a rotational shaft.