

Abstract**A SAFE UNMANNED AERIAL VEHICLE SYSTEM**

5 An unmanned aerial vehicle system (1) for use in building inspection. The unmanned aerial
vehicle system (1) comprises an unmanned aerial vehicle (10) without a built-in battery; a
base station (20) comprising a power supply unit (23), a tether (22) and a tether winch
mechanism (21); and a protection cage (30) surrounding the unmanned aerial vehicle (10).
The tether (22) is configured to connect the unmanned aerial vehicle (10) to the base station
10 (20), and transmit power from the power supply unit (23) to the unmanned aerial vehicle (10)
and transmit data signals between the unmanned aerial vehicle (10) and the base station (20).
The protection cage (30) comprises an ejectable parachute (31) and a plurality of inflatable
cushions (32) which are configured to deploy upon breakage of the tether (22) or free fall of
the unmanned aerial vehicle (10).

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(Most illustrative drawing: Figure 1)