




## Radius Spec Sheet

Model Name	Radius
Photo	

### Hardware

Weight (Inc. supplied camera)	Approx. 0.98kg
Wingspan	92cm
Payload capability	200g
Dimensions	90 x 55 x 12cm
Material	EPO foam, One take through Injection, Vacuum Forming and Foaming, High-temp. and Friction Resistant Spray on Surface.
Propulsion	Electric pusher propeller, 150 W brushless DC motor, Two Options Available
Battery	11.1V, 6400mAh, More than twice as much as what our competitor has.
Carry case dimensions	103 x 59 x 23cm

### Camera

Camera model	SONY WX-220
Sensor type	Exmor R CMOS
Sensor size	1/2.3 Inch
Resolution	18.2MP
Lens	SONY G Lens
Image format	JPEG
Camera calibration parameters	We can provide camera calibration report & parameters, our competitor can not do this.
Aerial photographing mode	Adopts flying straight course and constant height, efficient on taking photos. Our competitor flies in vertical curve and dive for photo shootings, lower efficiency on energy consumption.
Camera anti-vibration system	Self-designed anti-vibration system, our competitor has none.

Operation	
Maximum flight time	85 minutes, 30-40 minutes more than our competitor! 75 minutes if choosing more powerful motor by which the aircraft can take off much rapidly.
Maximum ceiling	3500 meters
Nominal cruise speed	50-60 km/h
Navigation system	GPS+INS
Communication & control frequency	433MHz/900MHz
Radio link range	Up to 3 km
Maximum coverage (single flight)	18 km <sup>2</sup> (at around 800 meter altitude AGL), 1.5 times as much as our competitor!
Wind resistance	Up to 45 km/h (12m/s or 28 mph)
Rain resistance	Small rain
Work temperature	-20-50°C
Take off type	Throw it into the air, motor starts automatically! Safer than our competitor!
Take off angle	12 degrees
Landing type	Circle down, Against the wind, Belly landing
Landing angle	Best adapted
Landing Process	Circling down to certain height around one point and then descend down naturally without motor power towards the direction of the landing point.
Linear landing accuracy	Approx. 5 m
Multi-drone operation	Yes
Automatic 3D flight planning	Yes
Acquisition performance	
Ground Sampling Distance (GSD)	Down to 5 cm per pixel considering about flight safety. Can be lower if flying at wide open place.
Relative orthomosaic accuracy	1-3 x GSD
Height above take-off location (AGL)	75-750 meters
Absolute horizontal/vertical accuracy (w/GCPs)	Down to 10 cm / 15 cm
Absolute horizontal/vertical accuracy (no GCPs)	1-5 meters
Software	
Automated pre-flight checks	Yes
Automatic take-off, flight, and landing	Yes
Autonomous camera triggering	Yes
Automated fail-safe routines	Yes
Flight planning & control (supplied)	Radius Fly Ground control software system
Image processing (Recommended)	Pix4Dmapper or Trimble Inpho