
ROOFUS V2 – Hardware Specification Sheet

1. Physical Characteristics

Dimensions	405 mm (L) × 260 mm (W) × 235 mm (H)
Weight	~14 kg (~30.9 lbs)
Payload Capacity	~10 kg (~22.1 lbs)
Mobility	Wheeled

2. Environmental & Operating Conditions

Operating Temperature Range	-20C to +40C (-5F to 105F)
Storage Temperature	15C to 25C (60F to 77F)
Humidity Tolerance	TBD
Ingress Protection (IP) Rating	IP31 (Self rated)
Durability	4 years

3. Key Subsystems

Proceq GP8800 (Ground Penetrating Radar)	Certifications: CE, IC, FCC (FCC ID: 2ANPE-GP8800), UKCA, RoHS Origin: Switzerland
Livox Mid-360 (LiDAR Sensor)	Certifications: CE, FCC, RoHS; Laser Safety: Class 1 (IEC 60825-1:2014) Origin: China
See3CAM_24CUG (Camera Module)	Certifications: FCC, RoHS Origin: India
LattePanda Sigma (SBC Compute)	Certifications: CE, FCC, KC, RoHS Origin: China
Arduino UNO R4 WiFi (Controller)	Certifications: CE, FCC; Contains ESP32-S3 FCC certified module Origin: Italy
ODrive S1 (Motor Controller)	Certifications: CE (EMC), FCC Part 15 Sub-B, RoHS Origin: USA
GNSS RTK (u-blox ZED-F9P)	Certifications: CE (RED), FCC, IC, UKCA, RoHS Origin: Switzerland
Battery Pack (Viset 24V 20Ah Lithium Ion)	Certifications: UN 38.3, IEC 62133, CE, RoHS Origin: China
Power Regulation Modules	All internal buck converters are CE/RoHS compliant

4. Labeling (On Robot)

Manufacturer	Building Diagnostic Robotics
Country of Origin	USA
Power Rating	24V DC (Battery Powered), ~480 Wh pack capacity; Max operational time per battery: 5.5 hrs
Subsystem COO & Disclosures	<ul style="list-style-type: none"> – Proceq GP8800 (GPR) – Switzerland – Contains FCC ID: 2ANPE-GP8800 – Livox Mid-360 (LiDAR) – China – Laser Class 1, IEC 60825-1 – See3CAM_24CUG (Camera) – India – LattePanda Sigma (Compute) – China – Arduino UNO R4 WiFi – Italy – Contains ESP32-S3 FCC certified module – ODrive S1 (Motor Controller) – USA – GNSS RTK (u-blox ZED-F9P) – Switzerland – Viset 24V 20Ah Lithium Battery – China – UN 38.3 certified

Subsystem mechanical/electrical assemblies (e.g., actuators, drives) are integrated into certified system modules and do not carry independent certifications unless explicitly listed.