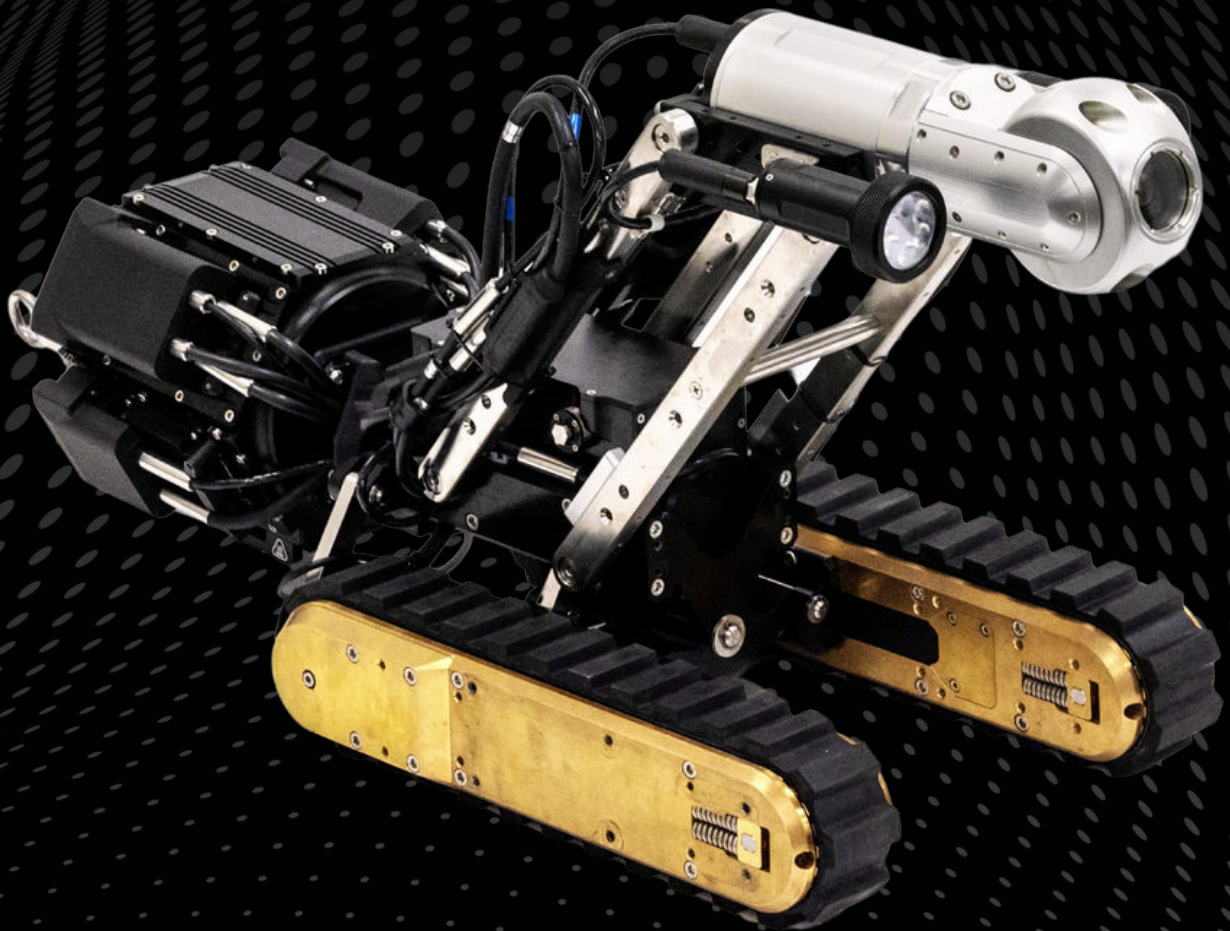


HELLCAT

Technical Specifications



nexxis

NEXXIS.COM

Hellcat:

Long Range Pipe Crawler

Built for Long-Range, Data-Driven Inspections

Hellcat is a high-performance crawler designed for long-range pipe inspections in demanding environments.

With support for a wide range of sensor integrations, it captures large, detailed data sets to enable thorough asset assessments.

Featuring impressive submersion capabilities and auxiliary lighting, it ensures clear visuals and reliable performance in even the most challenging, flooded, or low-light conditions.

Multi-Modular Design to “See.Touch.Repair”

Hellcat’s multi-modular architecture allows seamless integration of rotators, manipulators, and advanced tooling, empowering operators to do more than just see inside a pipe.

With 4K video capability, it delivers ultra-detailed imaging to support precise inspections and documentation.

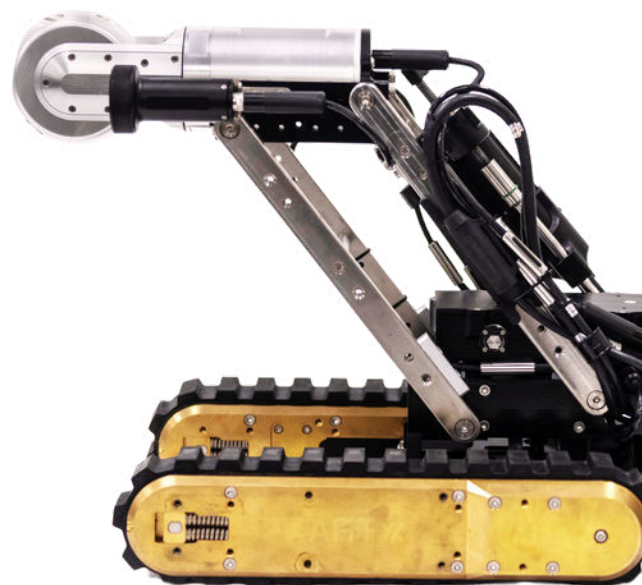
Designed to See.Touch.Repair, it can interact with internal surfaces, gather complex sensor data, and operates with full feedback and positioning systems.

INDUSTRIES

- Mining
- Utilities (Sewer/Water)
- Oil & Gas (Onshore & Offshore)
- Petrochemical
- Power Generation
(Hydroelectrical/Nuclear)

KEY APPLICATIONS

- Pipe and pipelines
- Sewer and storm drains
- Water intake and outfall inspection
- Penstock inspection
- Submerged structure inspection
- Confined space inspection



Hellicat Hardware

Built for Reliable, Heavy-duty Performance in the Harshest Conditions

From carbon steel and concrete to FRP pipes and more. All modules are pressure-tested and engineered to the highest standards for optimised ruggedness and durability, delivering dependable inspections no matter how demanding the environment.

A: Scope 4K Camera

3840x2160 PTZ visuals

B: Auxillary LED's

High Intensity Lighting

C: Lift Mechanism

Centralises camera + allows entry into smaller pipes

D: Environment Sensors

Record of water flow temp and sensors

E: Brix

Smart electronics distribution with HD rear camera

F: Pivot Mechanism

Controls the track cambre to maximise traction

G: Orientation

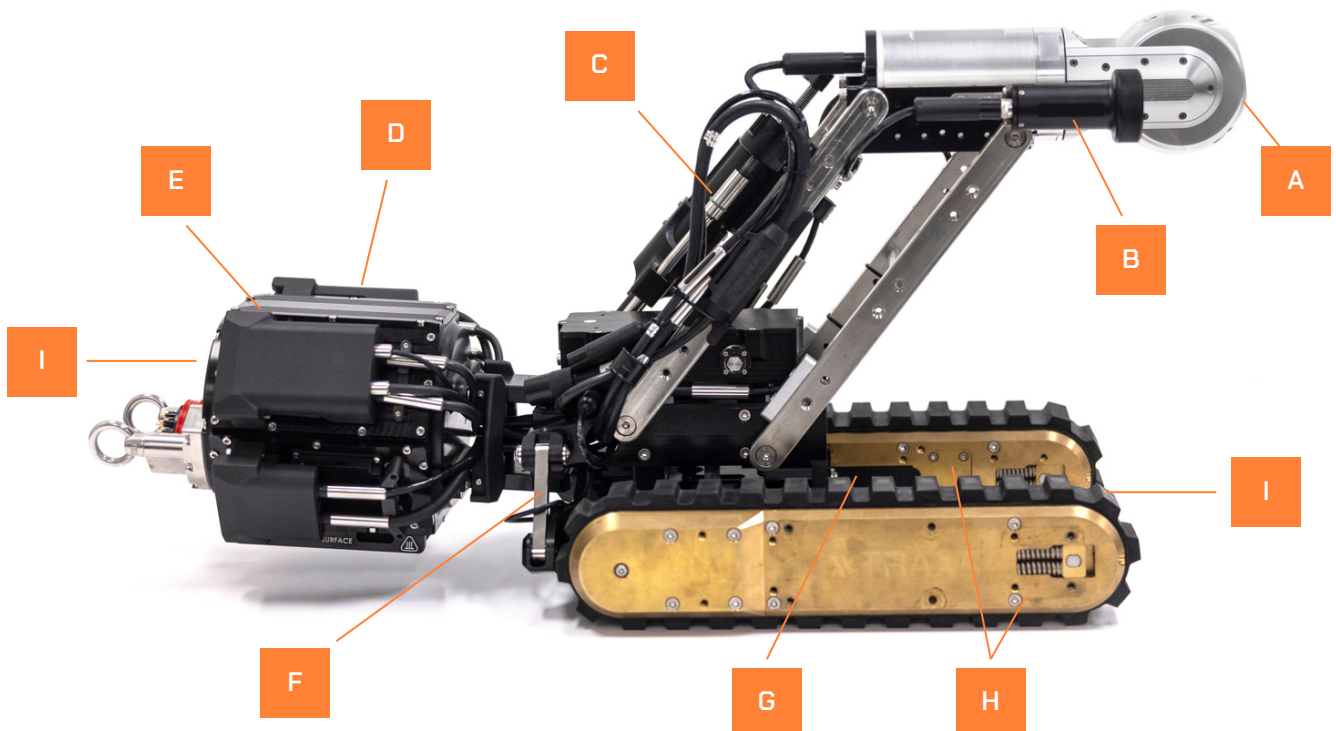
Compass, IMU Sensors

H: X-Trax LT

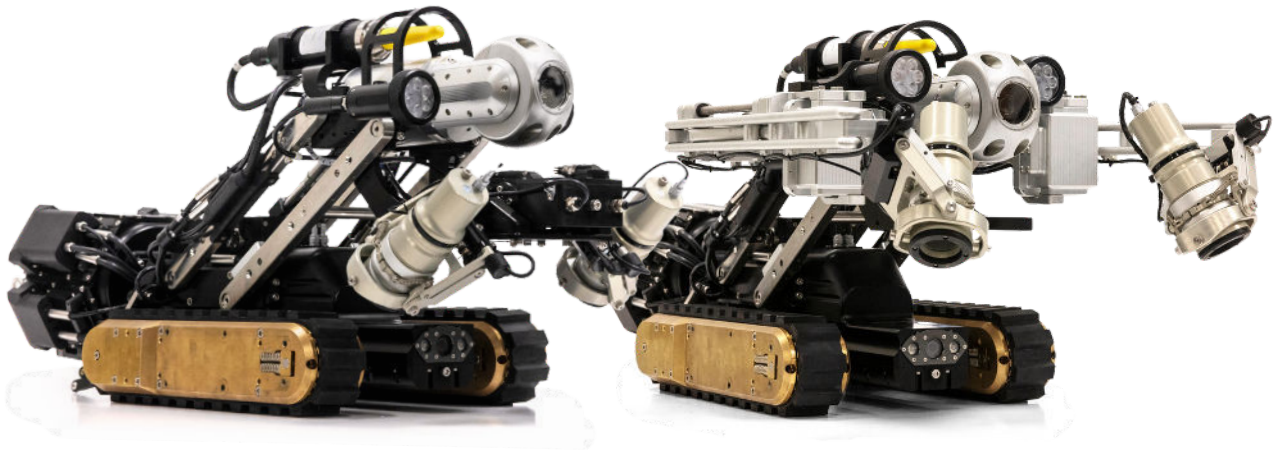
Heavy duty drive tracks

I: Monic

Front axial fixed HD camera + Rear reversing HD camera



Limitless Customisation



More Data per Deployment

The Hellcat can be customised for even greater functionality, capturing more data in a single trip.

Options include ultrasonic probes, actuated and rotatable arms, hydrophone, underwater laser scanner, and more. With 8 channels on the in-house developed Brix power splitter unit, you can add multiple sensors and payloads at once.



SENSORS AND PAYLOADS



CLOSE PROXIMITY ACTUATED
ARMS WITH UT PROBE



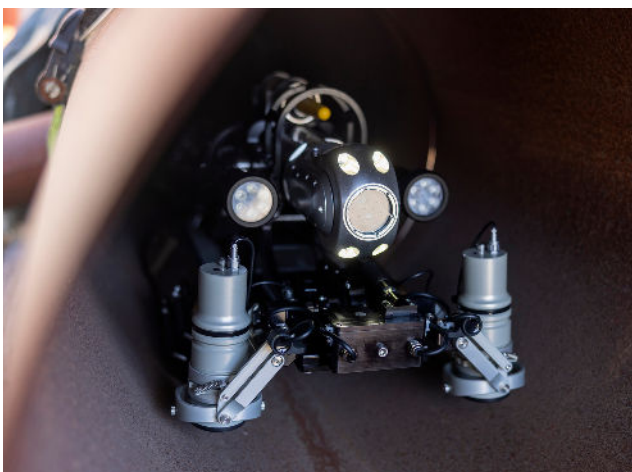
EXTENDABLE, ACTUATED ARM
WITH UT PROBE



HYDROPHONE TO LISTEN FOR
PIPE LEAKS



SUBMERSIBLE
LASER SCANNER



Hellcat with Raise Lower UT System + Hydrophone

A great display of inspection efficiency. This custom Hellcat features spring loaded UT probes on a raise lower mechanism to replace the need for manual UT, or additional systems.

This configuration also features a top mounted hydrophone to monitor leaks and irregularities when submerged.

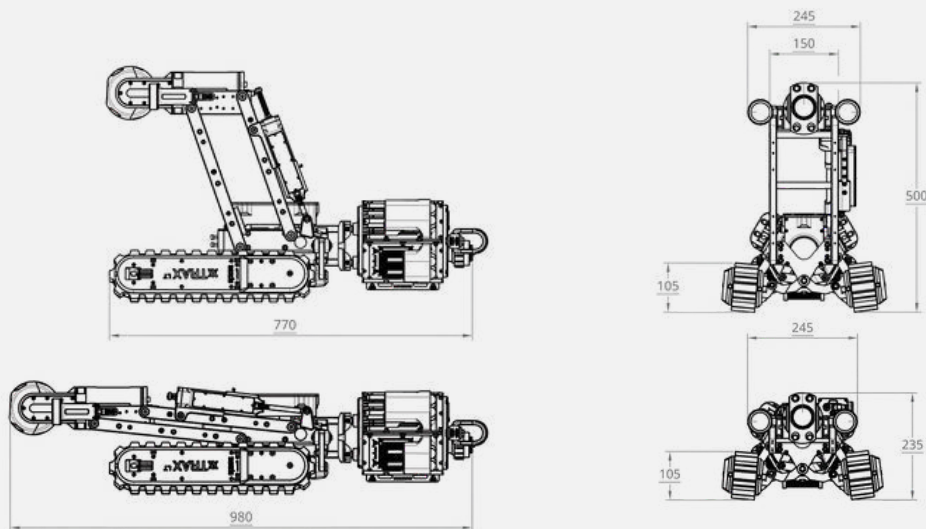
HELLCAT SPECIFICATIONS

DIMENSIONS (UPRIGHT LHW)	770mm × 500mm × 355mm 30.3 in × 19.7 in × 14.0 in
DIMENSIONS (CROUCHING LHW)	980mm × 235mm × 355mm 38.6 in × 9.3 in × 14.0 in
WEIGHT	APPROX 44kg 97lb
OPERATING TEMPERATURE	-20°C TO 50°C -4°F TO 122°F
ELECTRICAL	
CAMERAS	MAIN: 8MP, 4K (3840 × 2160) PTZ (10x OPTICAL ZOOM) FRONT CHASSIS: HD FIXED POSITION AXIAL REAR CHASSIS: HD FIXED POSITION AXIAL
LIGHTS	4 X VARIABLE INTENSITY LED'S (CAMERA) 2 X BEAM 6 LED (UP TO 8200 LUX EACH)
CONTROL SYSTEM	- POWER SUPPLY: 400VDV, 2000W - CONTROLLER: NEXXIS JUICEBOX
OPERATING SPECIFICATIONS	
PIPE DIAMETER	FROM 400mm 15.7in
TETHER LENGTH	300m 500m 1000m
DEPTH RATING	150m 492ft
PULLING CAPACITY	130kg 286lb
ADD ONS	
SENSORS	- UT PROBES (SPRING LOADED) - PAUT PROBES (SPRING LOADED) - HYDROPHONE - WHEEL ENCODER
LASER	ARGUS 3D SLAM VOYIS INSIGHT NANO
ARMS	PAYLOAD EXTENSION ARMS AVAILABLE

Adaptive to Every Environment

With an actuated raise-lower mechanism and adjustable track camber, the Hellcat automatically configures to different pipe sizes and shapes.

The crawler's chassis adapts at the click of a button, ensuring tight access without manual reconfiguration



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