

Safer, Cheaper and Innovative
With Float Arm, hazardous work performed at heights or in confined spaces using costly equipment becomes faster, safer, and more affordable, supporting your organization's digital transformation.

"Work of 5~6 days, including safety processes, permits and scaffolding, can now be completed in a few hours."
Asset owner



www.hibot.co.jp

hibot corporation
5-9-15 Kita Shinagwa
Shinagawa-ku, Tokyo 141-0001
Japan

hibot europe GmbH
Karl-Friedrich Strasse,60
52072, Aachen, NW
Germany

hibot americas
4200 San Jacinto St,
Houston, Texas 77004
U.S.A

Contact us:



Contact us:



hibot

Float Arm

One tool,
infinite possibilities

7m

EXTENDED
REACH



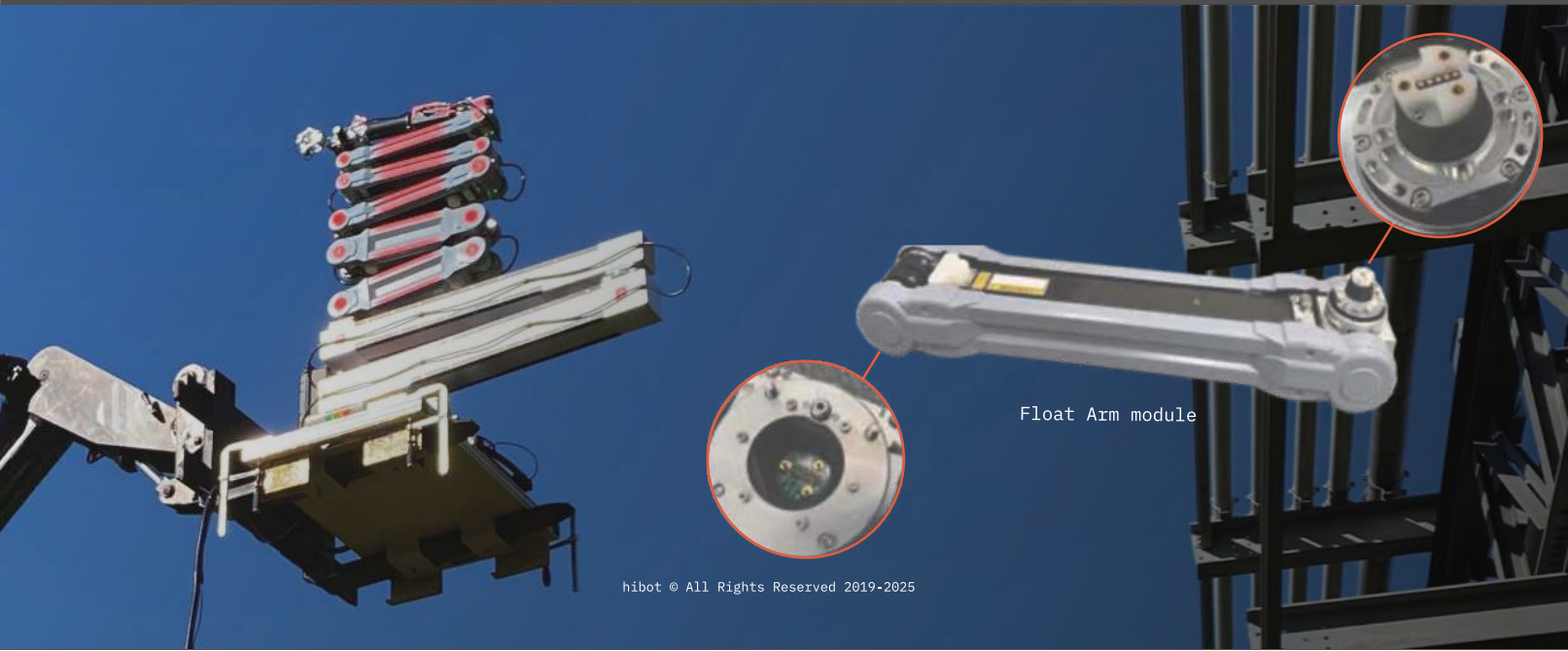
OUTDOOR
APPLICATIONS



WEIGHT
COMPENSATION



SNAKE-LIKE
MOBILITY



hibot © All Rights Reserved 2019-2025

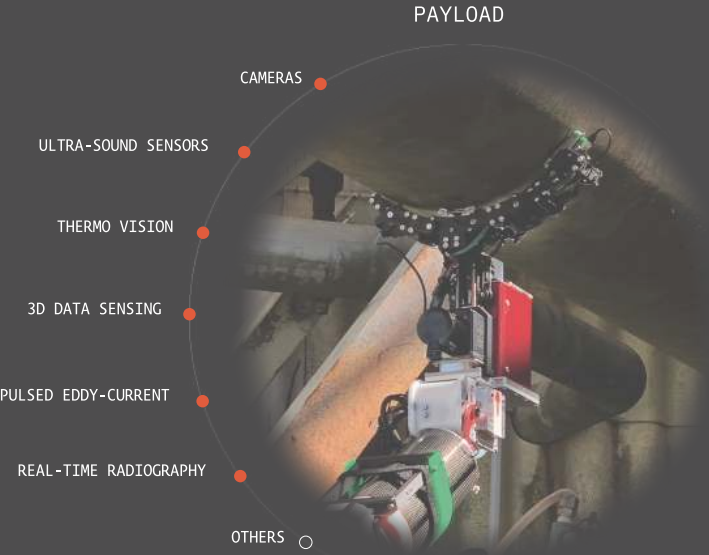
Float Arm - long-reach snake manipulator

Float Arm is hibot's new snake manipulator, designed for long-reach applications in confined spaces. With hibot's proprietary snake-motion control and unique self-balancing mechanism, it is able to navigate in complex environments and acquire detailed data for inspection and maintenance.

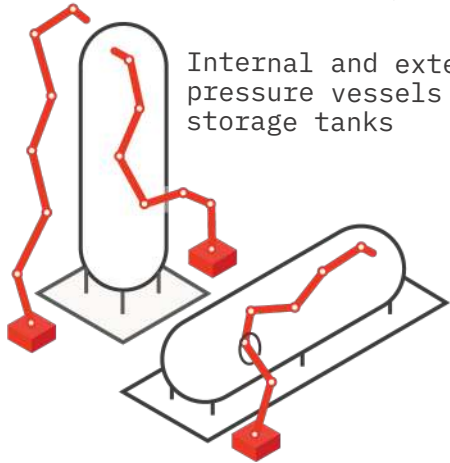
Float Arm is lightweight, fast and highly portable, making it an ideal tool for integration with other systems already in operation in the field, or simply as a stand-alone inspection device.

www.hibot.co.jp

hibot © All Rights Reserved 2019-2025

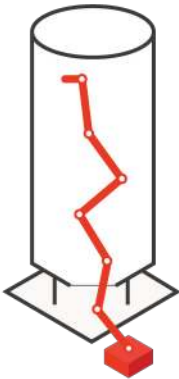


Electric Power			
Electrical rating	AC 100-240V, 50/60Hz, 10A		
Voltage tolerance	±10%		
Over-voltage	Category II (IEC 60664-1)		
Connector	IEC 60309 16A 250V 2P+E plug		
Power consumption	400W (average), 1kW (max)		
Pneumatic Power			
Input air pressure	8-10bar (800kPa-1MPa)		
Flow rate	30nL/min		
Internal pressure	7bar (700kPa)		
Control Modes			
Manual Joint Control (RPL)			
Automatic (pre-programmed)*1			
Manual Steering (IK)*1			
Move to Home*1 (automatic)			
Click'n'Go*1 (automatic)			
Tank Entrance*1 (semi-automatic)			
Tip Motion			
	Default speed	Max. speed	Repeatability
Translation	50mm/s	100mm/s	±5mm (horizontal), ±10mm (vertical)
Rotation	2.5°/s	5°/s	N/A
Sensors			
	Location	Resolution	Zoom
Inspection camera	End-Effector	1920x1080	30x (optical)
	UT Gripper	640x480	N/A
Navigation camera	End-Effector (x2)	640x480	N/A
	Unit 3 (x2)	640x480	N/A
	Location	Meas. range	
LiDAR	End-Effector	10cm ~ 30m	
UT probe	UT Gripper	Transd.: D791-RM; Gauge: 38DL PLUS (1mm ~ 508mm)	

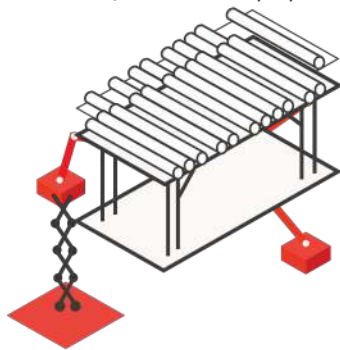


Internal and external pressure vessels and storage tanks

Silos and access shafts



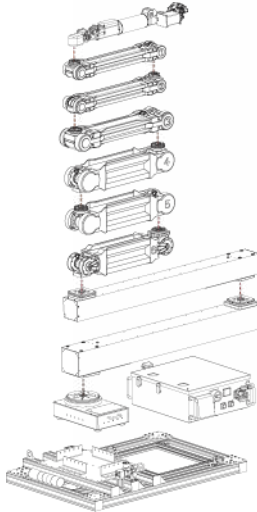
High places / pipe racks



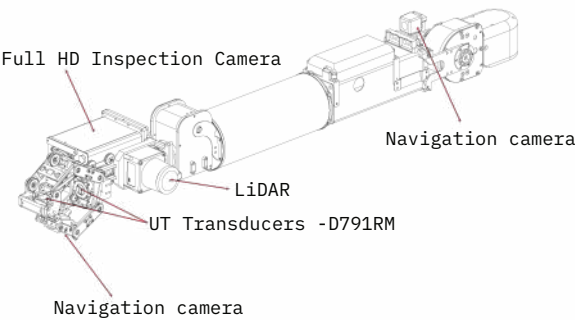
Dimensions			
	Horizontal	Vertical	
Maximum reach	7m	5m	
	Length	Width	Height
Size when folded	1.7m	0.8m	1.6m
Operating Conditions			
Temperature range	-10°C to 40°C		
Humidity	up to 90% at 20°C		
Wind Speed	up to 7m/s up to		
Altitude	2,000m		
Storage temperature	-25°C to 55°C		
Pollution Degree	3, according to IEC 60664-1		
Noise Level	Less than 60dB*2		
IP Rating	65		
Applicable			
Machine Directive 2006/42/EC			
EMC Directive 2014/30/EU			
RoHS Directive 2011/65/EU			

* Collision Avoidance feature available*
2 Excluding air compressor

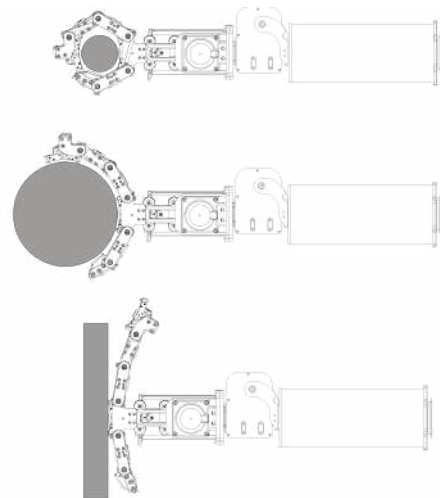
The links can be easily connected in the field



Details of the end effector



Simultaneous measurements of wall metal thickness on flat surfaces and on pipes (from 2" diameter)



The base can be easily clamped or fixed to different lifter mechanisms, such as cherrypickers, man lifters or long booms

