



D.M. Robichaud Associates Ltd.

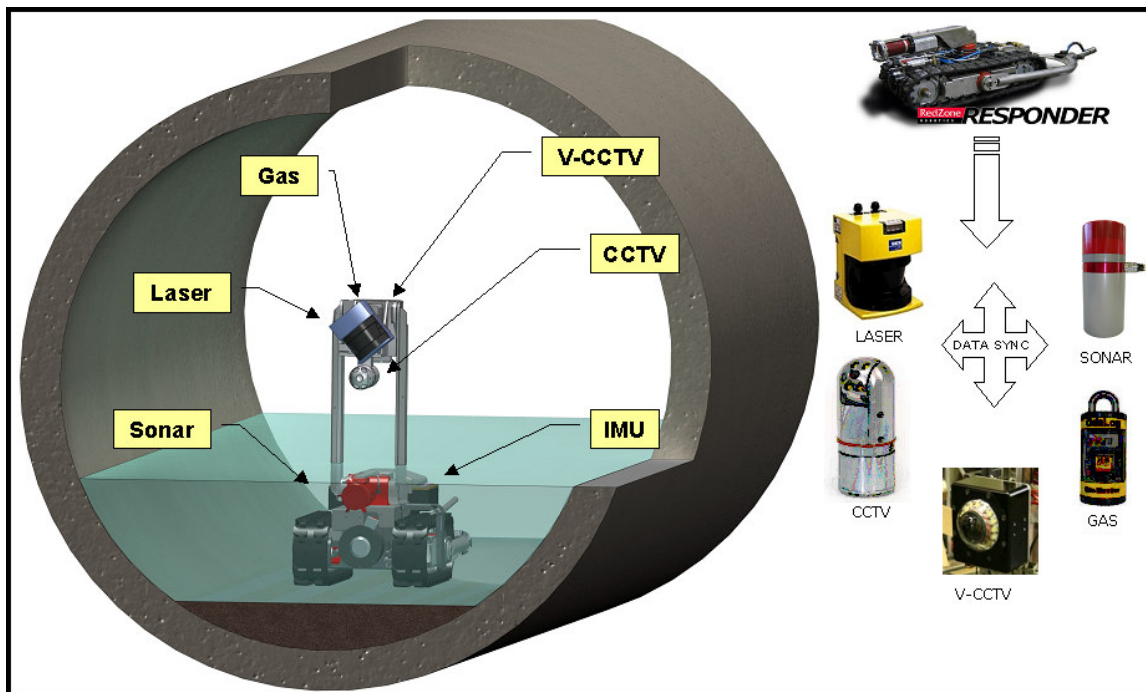
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RedZone Robotics' Large Diameter Pipeline Condition Assessment Services

D.M. Robichaud Associates Ltd., with its head office in Oshawa, has completed virtually every kind of major underground project utilizing trenchless technology methods that includes inspections of manholes and sewer pipelines in many cities throughout Ontario. The company has a reputation of completing its projects on time and within the contract limits irrespective of how difficult the challenge, They are the licensees of several patented processes including the pipeline inspection services of RedZone Robotics, based in Pittsburgh, PA.

D.M. Robichaud and RedZone dramatically improve inspection capabilities by providing one-pass multiple sensor inspection technology resulting in the best inspection value in the industry. The long distances and remote access means more pipe can be inspected in less time for less money. The collection of measurable digital data provides accurate pipe condition assessments, depicted in a configuration similar to the following:



The Responder platform is a combination skid-steer, rotating turret, hydraulic robot weighing 300kg on a 2000 meter tether that can maneuver downstream and upstream in flows up to 3 m/sec. The responder can be deployed through a minimum 600mm diameter access in pipelines greater than 750mm diameter with any flow. The Responder enables onboard synchronized data collection of the following pipeline condition sensors:

- CCTV: Pan/tilt/zoom camera is standard camera used for navigation and digital image collection
- V-CCTV: Virtual CCTV using RedZone's proprietary V-360 camera providing 3D video/photo images
- SONAR: Used below the fluid level to quantify sediment deposition, pipe geometry, and 3D pipe models
- LASER: Used above the fluid level to measure corrosion, defect severity, ovality and joint spacing in 3D
- GAS: Records level and location of high H2S levels in pipeline
- IMU: Internal to the Responder, capable of geo-locating pipelines using incline and meander data

For more information, contact: Contact Earl @ 905-433-1261 or earl@nodig.ca