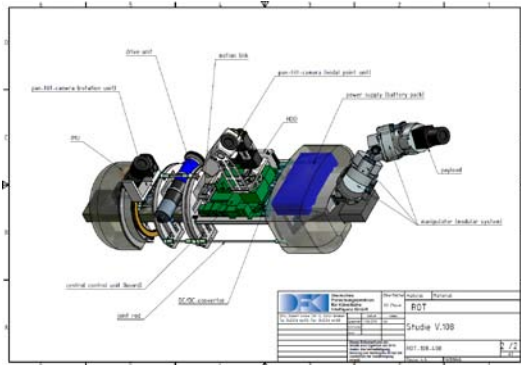


# ROT

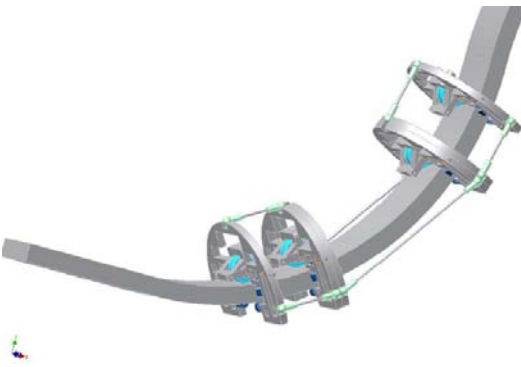
## RObots in Tanks - Factsheet



Double bottom ballast water tank (construction phase)



Robotic Inspection Demonstrator Concept



3D rail guidance capability

### Evaluation and Demonstration of Robotic Solutions for the Inspection and Maintenance of Ballast Water Tanks on Ships

The international research project “RObots in Tanks” (ROT) contributes to the development, implementation, and integration of new maintenance and inspection processes in narrow, difficult-to-access, dirty, and complex closed spaces, such as ballast water tanks (BWTs) in ships.

#### Design parameters:

Control:	Fully autonomous
Locomotion:	3D rail guided
Length:	693 mm
Width:	244 mm
Height:	293 mm
Approx. Weight:	9 kg
Max. Speed:	0.52 m/s
Est. Power Consumption:	45W (depending on tank design)
Power Supply:	25.6 V 5000 mAh LiPo Battery
Est. operation period:	2.9 h
Drivetrain	
Motor type:	Brushed DC
Motor torque:	110 mNm
Gear:	Planetary 36:1
Torque @ rail:	198 Nm
Designated sensors	
High-Res Cam:	Prosilica GC2450C 2448 x 2050 px 15 Hz
IMU:	Xsens Mti
Oxygen Monitor	
Thickness measurement:	ATP TE 1250-FN

#### Partners:



#### Supported by:



on the basis of a decision by the German Bundestag

#### Contact:

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