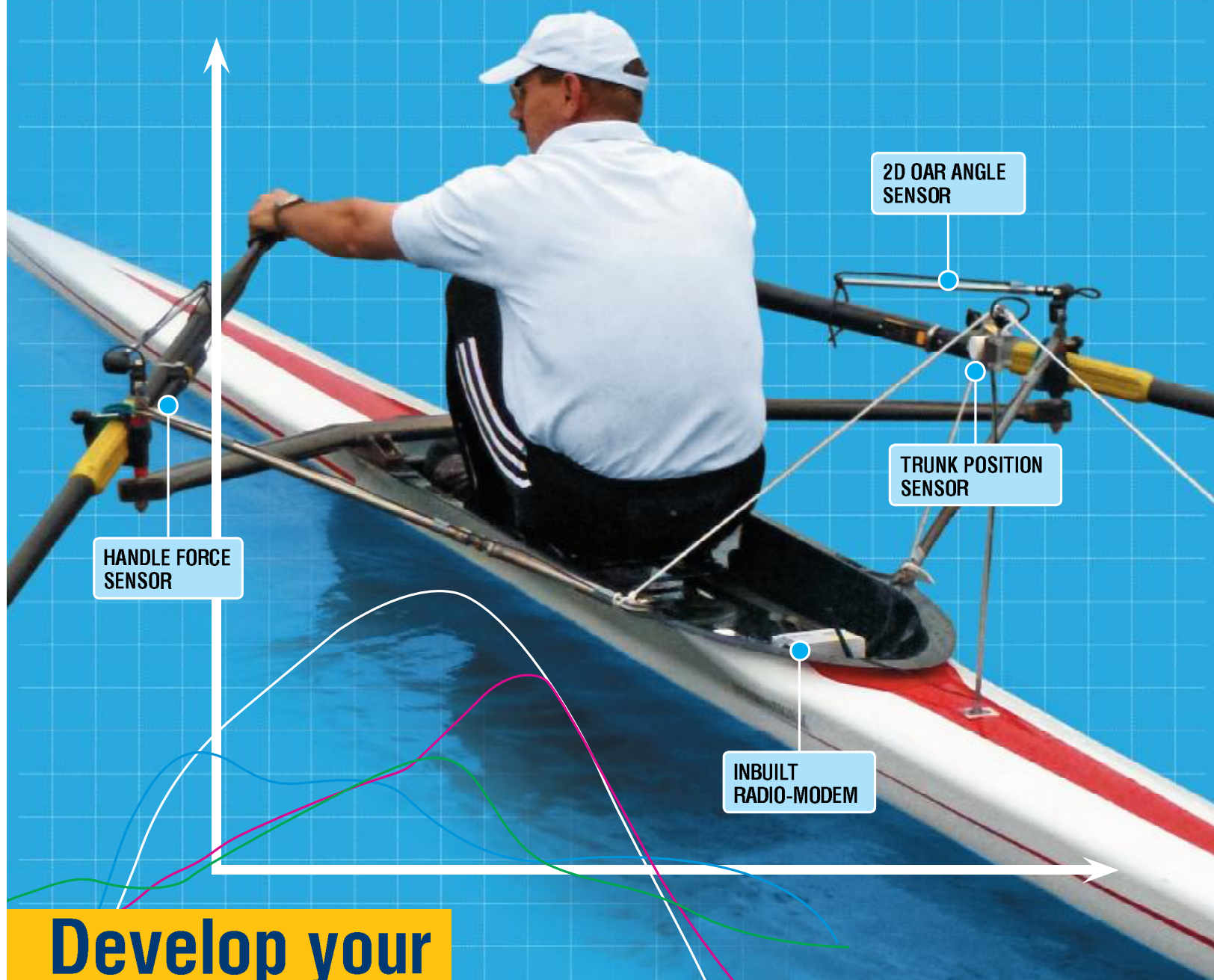


# TELEMETRY SYSTEM

## BIOROW TEL v. 2012

**NEW!**



**Develop your  
IDEAL ROWING TECHNIQUE  
with BioRow Lab**

**BIOROW**  
BIOMECHANICS OF ROWING

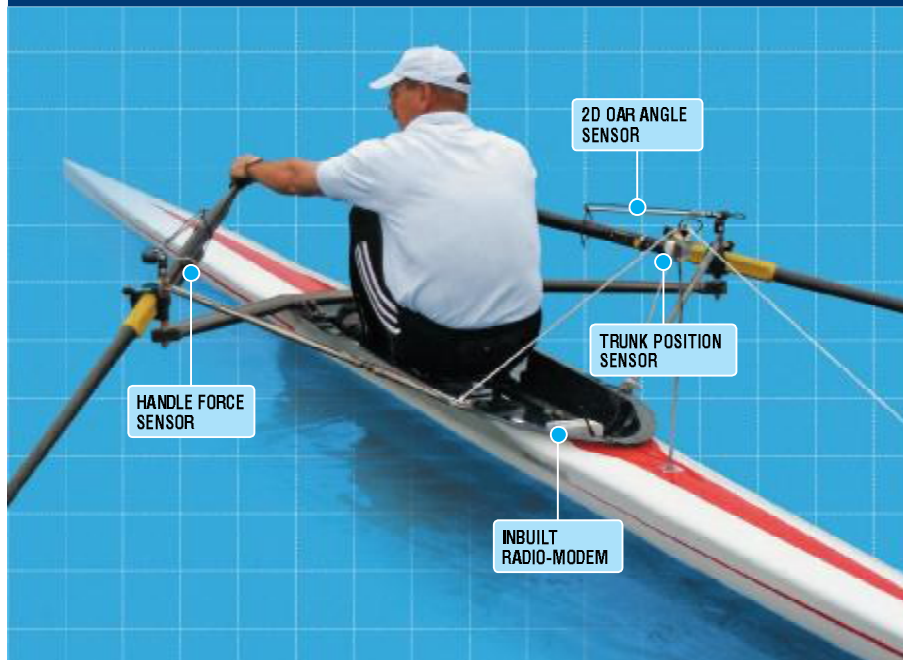
For further information contact Dr. Valery Kleshnev:  
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[www.biorow.com](http://www.biorow.com)



# TELEMETRY SYSTEM BIOROWTEL v.2012

**NEW!**



## Key benefits

BioRowTel™ is a scalable system, which can work with any rowing boat as well as in a tank. It can measure and analyse the most essential components of rowing technique: force application and blade work, body segments activities and rowing style, boat mechanics and synchronisation in the crew.

The system is light (sensors weight 70-180g) does not affect rigging settings and is quick to setup: from 30 min for 1x up to 90 min for 8+.

The system is very accurate (14 bit digitization, 25-100 Hz sampling frequency) and can be used both for practical and research applications. Original calibration method takes only 1 min to calibrate each oar and allows reliable calculation of rowing power

Unique averaging algorithm allows unambiguous analysis of massive rowing data, easy comparison of various samples (rowers in the boat, various stroke rates, previous and current data).

Sensors of boat velocity, GPS, 3D acceleration and 3D gyro allow the most accurate determination of the movement of rower-boat system and accurate estimation of rower's efficiency and effectiveness.

Inbuilt radio-modem allows real-time feedback to a coach.

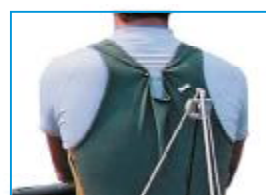
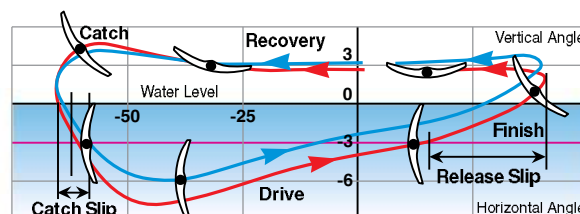
## SPECIFICATIONS OF BIOROWTEL™ SYSTEM V.2012

Mass of the Master unit with battery	300 g
Mass of the system, less than	1kg for 1x, 2-; 1,5 kg for 2x, 4-; 2,5 kg for 4x, 8+
Continuous working time, more than	8 hours
Number of channels	24 – 128
Sampling frequencies	25, 50, 100 Hz
AD resolution	14 bit

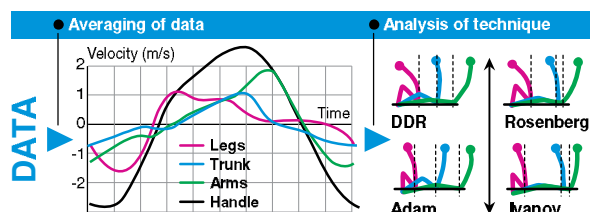
## How it works



Two-dimensional (2D) oar angle sensor measures position of the oar shaft in horizontal and vertical planes. This allows defining the track of the blade relative to water level and hence catching and releasing slips and effective angles.



Position sensors of the seat and shoulders allow to derive their velocities and power input into total rowing power, which makes it possible to define rowing style and conduct in-depth analysis of the technique.



## A SELECTION OF FORCE TRANSDUCERS CAN BE USED WITH BIOROWTEL™



1 Wired handle force transducer is light, reliable and quick to setup.



2 Wireless 7D sensor can measure handle force as well as 3D accelerations and 3D rotations. It can also be used in canoe and kayak.



3 Instrumented gate is available for long-term monitoring of rowing technique as well as for research purposes.

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