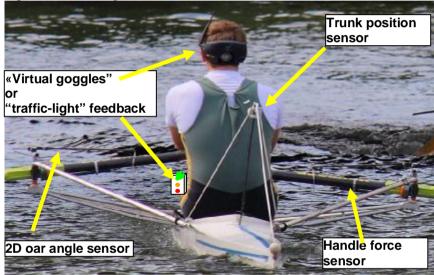


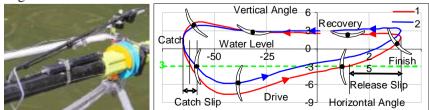
## Rowing Telemetry system BioRowTel v4.0

The system consists of sensors (transducers), electronic unit, optional radio-modem, PC with dedicated software package and a feedback device. The system based on more than 20 years experience of biomechanical measurements in rowing and the latest technologies in electronics, software and engineering. BioRowTel<sup>TM</sup> is flexible and powerful tool, which can work with any boat type and in a rowing tank.

The system is quick to setup (30min for 1x, 2hours for 8+) and remove (5-20min). It does not affect any rigging settings, which is important before regattas.

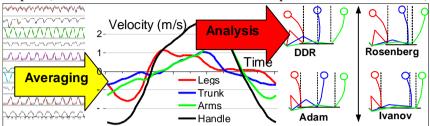


Two-dimensional (2D) oar angle sensor measures position of the oar shaft in horizontal and vertical planes. This allows to define the track of the blade relative to water level and hence catch and release slips and effective angles.



The force sensor measures the force applied to the oar handle by means of detection of the shaft flex. Unique calibration method takes only 1min to calibrate each oar. This allows very accurate calculation of rowing power, which does not affected by the point of force application on the handle. The sensor is small, light and can be used on both sculling and sweep oars.

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



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.

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

BioRowTel can work together with visual feedback VFS system and provide immediate feedback on biomechanical data and its evaluation relative to a model as a score and a voice command. Moreover, each seat of the system is equipped with a portable feedback device, which emits a "traffic-light" signal: green means "excellent", orange – "good", red – "bad". The criteria of the evaluation can be quickly programmed from the coach's laptop or on-board PC.



## `Specifications of BioRowTel system v 4.0

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

## **Contact Us**



 $\begin{array}{l} Dr. \ Valery \ Kleshnev \\ \underline{www.biorow.com} \ , \underline{kleval@btinternet.com} \end{array}$