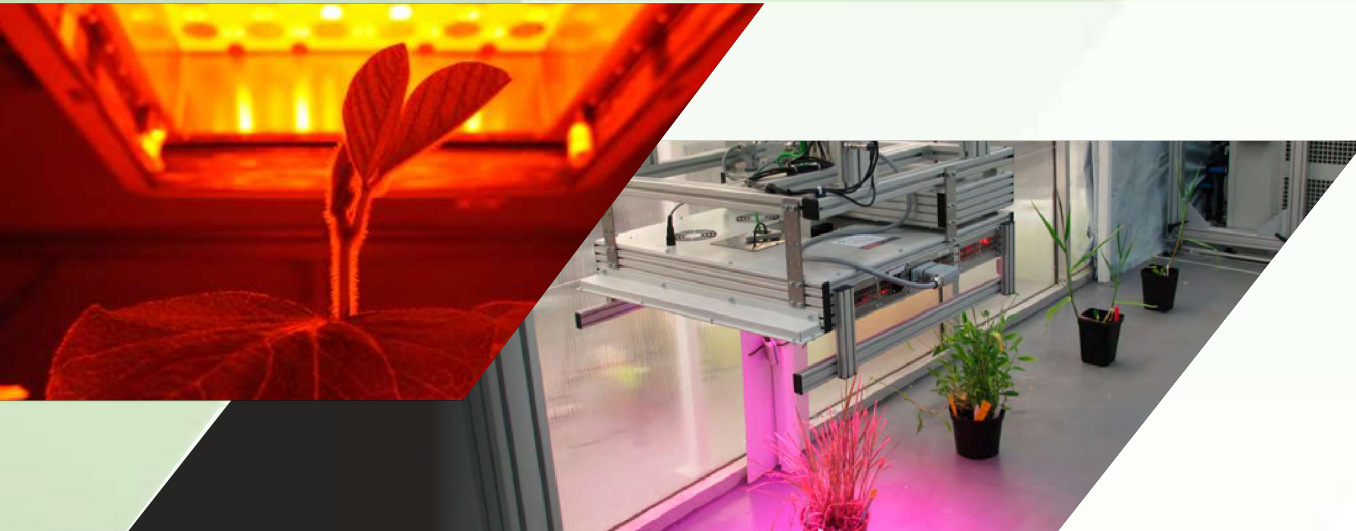


PlantScreen™

Robotic XYZ & Transect XZ Systems



PlantScreen™ Robotic XYZ and Transect XZ Systems

are designed for automated sensor-to-plant phenotyping on the single and multiple plant level. A robotic arm is built above the growth space for movement of imaging sensors across a given area.

The system moves laterally (X and Y directions), and vertically (Z direction). The XZ/XYZ arm carries the imaging array, with its light sources, directly to the plants in a pattern defined in software and optimised for phenotyping efficiency.

XYZ phenotyping systems are available in a range of sizes from small scale cabinet models to extremely large-scale systems for incorporation into greenhouses or growth rooms. All systems include sensors for environmental monitoring.

Key features

- Sensor-to-plant concept
- Robust and stable construction with a movable camera and light sources in XYZ/XZ axis
- For various environments from lab to field
- Multiple imaging sensors
- Integrated environmental sensors
- Tailored solutions for in vitro or soil cultivations



PlantScreen™ Field Systems

PlantScreen™ Field Systems

are autonomous mobile platforms for fast and accurate crop phenotyping in the field. Each system incorporates a multi-functional sensor platform mounted on an autonomous drive mechanism and allows the user to monitor numerous aspects of plant growth, development and response to biotic and abiotic stresses in the plants' natural environment.

The PlantScreen™ Rover

is a smaller-scale mobile unit for fast and accurate crop phenotyping in the field or greenhouse. The system has drive mechanisms and integrates multiple sensors for non-invasive analysis of plant physiological and morphological features.

The Rover FluorCam is a customized fluorescence imaging system for physiological screening. Its wheels provide exceptional stability and easy movement among plants in the field. Large plants, such as corn, soybean etc. may be studied in situ without physical disturbance.

Key features

- Robust autonomous system
- Multi-functional sensor platform
- Environmental monitoring
- Robust mobile design
- Open database structure
- Integrated environmental sensors
- Sensor-to-plant concept

