

## **Specifications Document**

# CI-602 Narrow Gauge Root Imager

This minirhizotron root scanning system takes non-destructive, high-resolution digital color images of roots, root hairs, and mycorrhizae in the soil, enabling observation of root growth and behavior over time. The CI-602 can service multiple durable, acrylic access tubes for measurements throughout multiple growing seasons.



### RootSnap! Image Analysis Software

RootSnap! automates much of the tedious work of analyzing root images. RootSnap! automatically detects root diameter along the entire length of the root. Initial tracing of the root is intelligently detected as you drag a finger over the image on a touch screen. By recognizing differences in pixel color values between root and soil, RootSnap! automatically "snaps-to" the root, even if the finger or mouse is not perfectly over the root during tracing.

#### **Product Features**

- High-resolution scanner head
- White calibration tube
- Collapsible indexing handle for consistent, repeatable measurements throughout each tube
- Six 1-meter clear acrylic tubes included with scanner package
- Handheld tablet computer preloaded with CI-602 operational software, as well as RootSnap! Image Analysis Software

### RootSnap! Features

- Measurements of: Root length, Diameter, Area, Branching angle, Volume
- Rapid cursory estimation of total root volume

Image size	21.59 cm x 18 cm (8.5" x 7.1")
Scan speed	~30 seconds (depending on selected resolution)
Image resolution	Up to 1200 DPI
Interface	USB Cable, Wi-Fi, Bluetooth
Scanner head dimensions	35.9 cm long x 4.6 cm diameter (14.125" x 1.8")
Control box dimensions	18 cm x 7.5 cm x 5 cm (7.125" x 3" x 2")
Total weight	1950g or 4.3lbs
ROOT TUBE DIMENSIONS	
Inner diameter	5 cm (2")
Outer diameter	5.7 cm (2.25")
Wall thickness	3.2 mm (.125")
Standard length	105 cm (41.3")