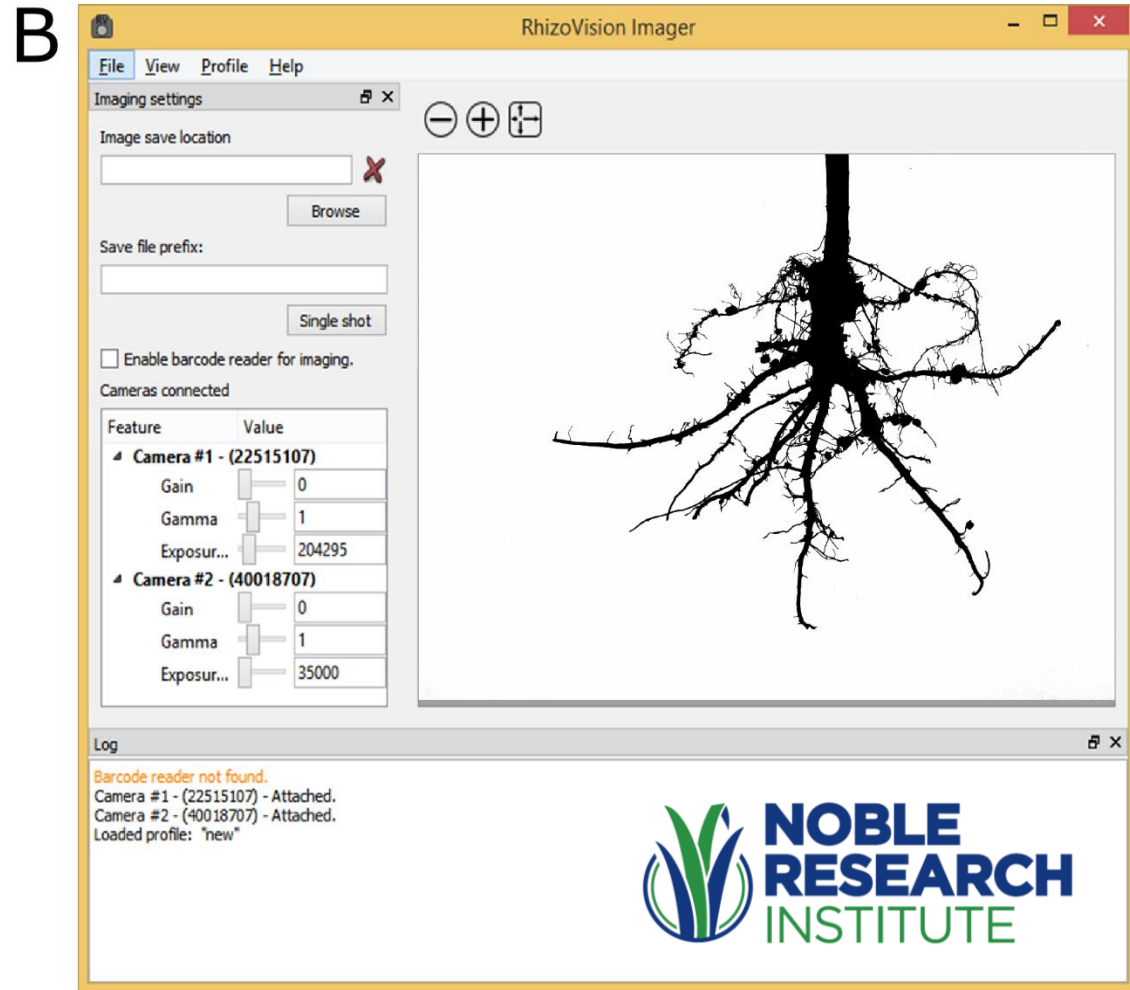


Hardware plans, images, and details (plans and parts last 2 pages)

RhizoVision Crown: An Integrated Hardware and Software Platform for Root Crown Phenotyping

Anand Seethepalli (primary software developer), Haichao Guo, Xiuwei Liu, Marcus Griffiths, Hussien Almtarfi, Zenglu Li, Shuyu Liu, Alina Zare, Felix B. Fritschi, Elison B. Blancaflor, Xue-Feng Ma, Larry M. York (primary hardware developer)



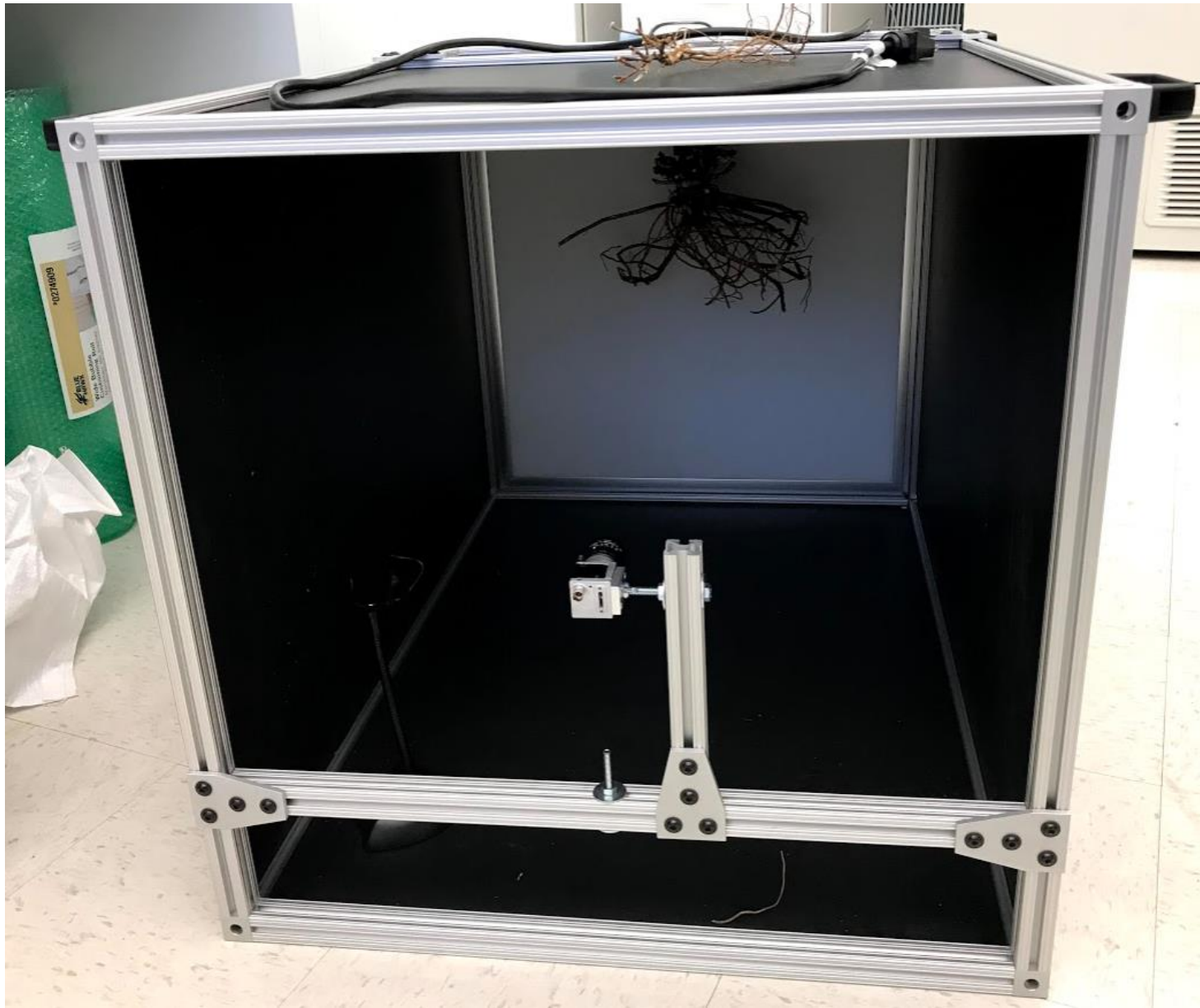
7-hole plates on the back were used to seat light panel then adhesive was added around the interior to keep it in place. Added dimmer but not useful.





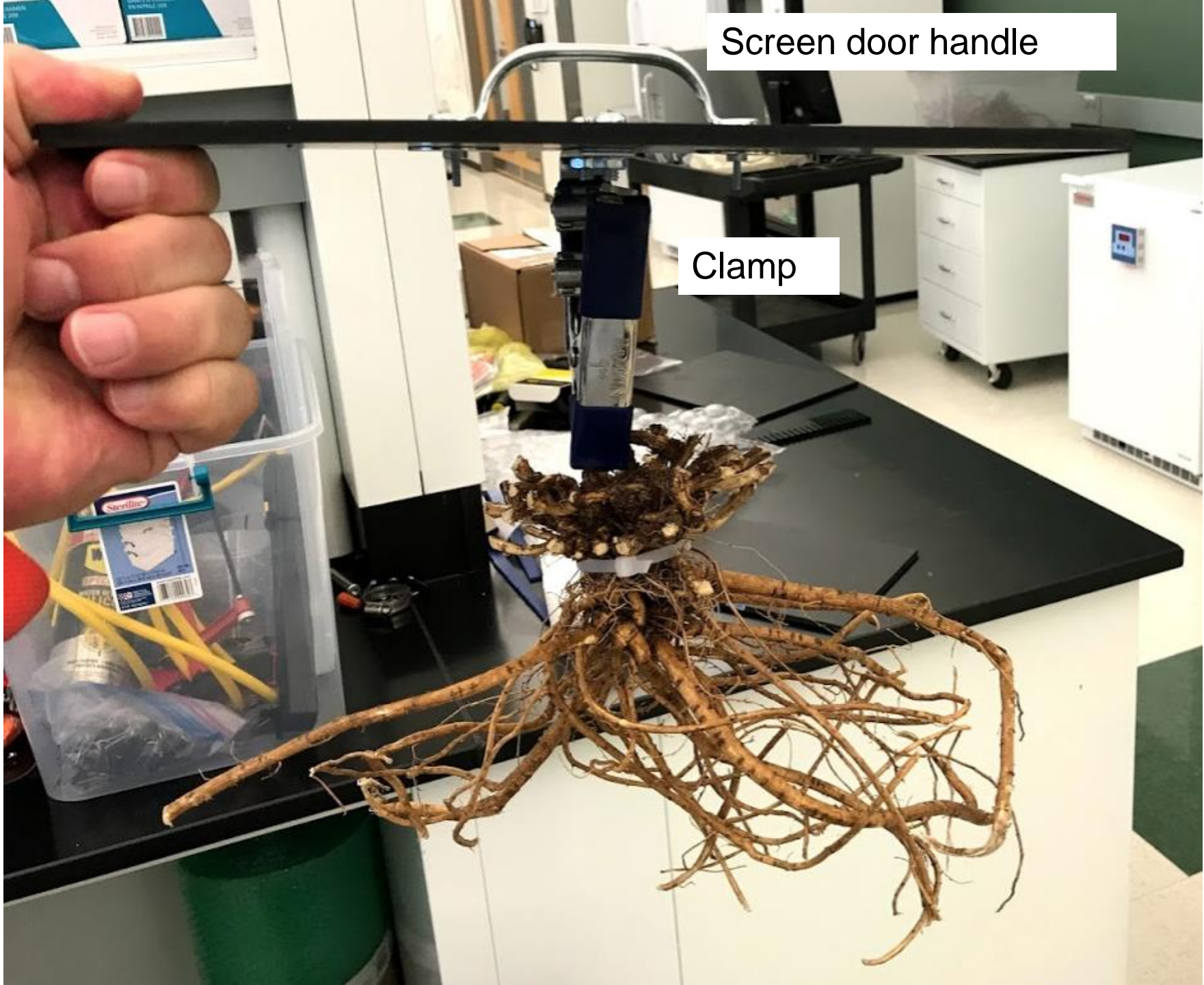
Note this version used corner connectors rather than end-fasteners. The included plans are for use of end fasteners to save money.

Here you can see two ways to mount the camera (ask for the $\frac{1}{4}$ 20 adapter for the Basler camera to mount on tripod post), either in portrait or landscape.



Screen door handle

Clamp





Corner braces
3 inch

Hose clamps
1 inch

Metal spring clamp

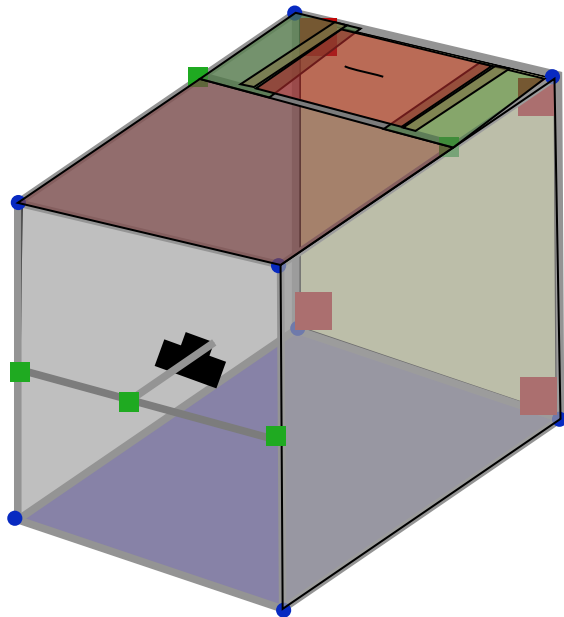
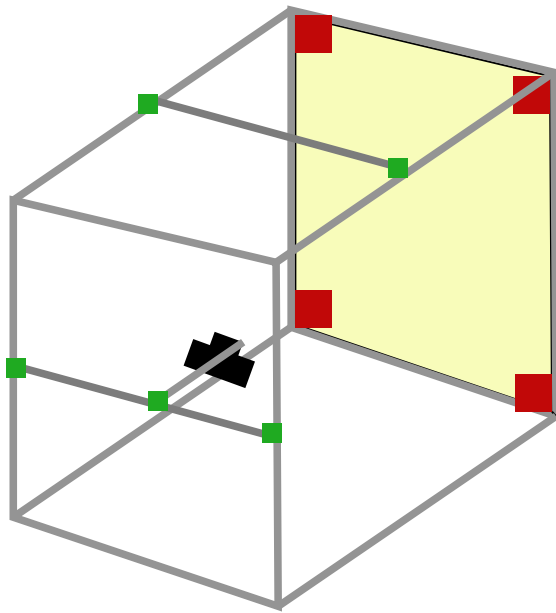
These 'guide' panels are glued to the side so the roots are always positioned correctly, dimensions give in PDF



RhizoVision Crown

Revision 4, adjust plastic panel sizes and cross profiles

Larry York, Noble Research Institute



■ 4 hole Tee plate x 5

■ 5 hole 90 degree plate x 4

34" 10 series T-profile x 4
*1/4 20 taps on both ends

25.8" 10 series T-profile x 4
*2 90 degree access holes at .5" on both sides

23.8" 10 series T-profile x 4
*1/4 20 taps on both ends

23.7" 10 series T-profile x 2
These pieces are movable, so fit better
if a little shorter

9" 10 series T-profile x 1

■ 23.7" square LED light panel

1/4" foamed PVC

3 x side and bottom
34.6" x 24.4"

top main
 $34.6 - 10 = 24.6$
24.6" x 24.4"

2 x top mini side
 $(23.7 - 10)/2 + .3 = 7.15$
9.6" x 7.15"









2 x top side guide
9" x 2"

4 x top root holder
9" x 12"

Shopping Cart

[Proceed to Checkout →](#)

Please visit the [Shipping Schedule](#) for more information

Image	Product Name	Machining Services / Each	Price	Qty	Subtotal	Remove
	34 Inches (863.6 Millimeters) 1.00" X 1.00" T-Slotted Profile - Four Open T-Slots Part Number: 1010	1 Cut to Length 2 End Taps 7061 Left 7061 Right	\$13.67	4 <input type="text" value="4"/> <input type="button" value="update"/>	\$54.68	Remove Item
SKU: 1010 Move to wishlist						
	25.9 Inches (657.86 Millimeters) 1.00" X 1.00" T-Slotted Profile - Four Open T-Slots Part Number: 1010	1 Cut to Length 4 Access Holes 7051 in R @ 0.5 7051 in R @ 25.4 7051 in S @ 0.5 7051 in S @ 25.4	\$15.71	4 <input type="text" value="4"/> <input type="button" value="update"/>	\$62.83	Remove Item
SKU: 1010 Move to wishlist						
	23.9 Inches (607.06 Millimeters) 1.00" X 1.00" T-Slotted Profile - Four Open T-Slots Part Number: 1010	1 Cut to Length 2 End Taps 7061 Left 7061 Right	\$11.35	4 <input type="text" value="4"/> <input type="button" value="update"/>	\$45.39	Remove Item
SKU: 1010 Move to wishlist						
	23.9 Inches (607.06 Millimeters) 1.00" X 1.00" T-Slotted Profile - Four Open T-Slots Part Number: 1010	1 Cut to Length	\$7.45	2 <input type="text" value="2"/> <input type="button" value="update"/>	\$14.89	Remove Item
SKU: 1010 Move to wishlist						
	Standard End Fastener, 1/4-20 Part Number: 3381	None	\$1.50	16 <input type="text" value="16"/> <input type="button" value="update"/>	\$24.00	Remove Item
SKU: 3381 Move to wishlist						
	10 Series 4 Hole - Tee Flat Plate Part Number: 4141	None	\$5.80	4 <input type="text" value="4"/> <input type="button" value="update"/>	\$23.20	Remove Item
SKU: 4141 Move to wishlist						
	10 Series 5 Hole - 90 Degree Angled Flat Plate Part Number: 4151	None	\$6.30	4 <input type="text" value="4"/> <input type="button" value="update"/>	\$25.20	Remove Item
SKU: 4151 Move to wishlist						
	Bolt Assembly: (2) 1/4-20 x .500" Black FBHSCS and Double Slide-In Economy T-Nut - Black Zinc Part Number: 3356	None	\$0.95	16 <input type="text" value="16"/> <input type="button" value="update"/>	\$15.20	Remove Item
SKU: 3356 Move to wishlist						

[Update Shopping Cart](#)

Subtotal: \$265.39

Grand Total \$265.39

[Proceed to Checkout →](#)

Please visit the [Shipping Schedule](#) for more information