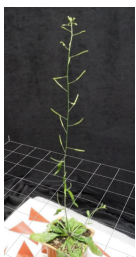


## PLANT DATA



Real plant



Virtual plants



Plant Generator

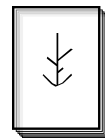
## PIPELINE

### 2D Segmentation

Parameters:  
- Trained model



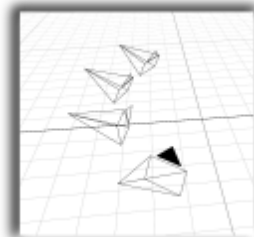
2D images



2D masks

### Structure from motion

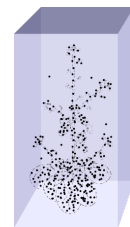
Off the shelf  
software  
(COLMAP)



Camera poses

### Space carving

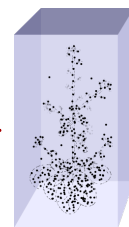
Parameters:  
- Voxel size  
- Threshold for  
binarization  
- Dilation size



Binary volume  
 $V[i,j,k] \in \{0,1\}$

### Level set method

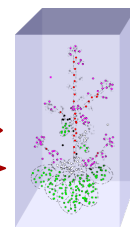
Parameters:  
- None



Point cloud  
 $\{x,y,z\}$

### Backprojection and voting

Parameters:  
- None



Segmented  
point cloud  
 $\{x,y,z,label\}$