

- Device
 - Intel RealSense SR300

- Images
 - original images: RGB images from SR300
 - aligned depth images (original): depth images aligned to RGB images from SR300, and saved as 16bit PNG images
 - aligned depth images (ours): depth images aligned to RGB images by ourselves, and saved as 16bit PNG images
 - plant images: images containing one plant
 - label images: images containing manually assigned labels for leaves in plant images

- Naming rules
 - Parameters
 - ◇ AA: plant ID from 00 to 04
 - ◇ BBB: day ID from 000 to 009
 - ◇ CC: time ID from 00 to 05

Note that one day starts at 3 p.m. and ends at 3 p.m. next day, and images are captured every 4 hours in one day.
 - File names
 - ◇ original images: rgb_BBB_CC.png
 - ◇ depth images: d_BBB_CC.png
 - ◇ plant images: rgb_AA_BBB_CC.png
 - ◇ label images: label_AA_BBB_CC.png

- Leaf colors in label images

Leaf colors in plant images are common and determined from the oldest as follows.

From oldest	R	G	B
1	0	0	255
2	0	255	0
3	0	255	255
4	255	0	0
5	255	0	255
6	255	255	0
7	128	128	128
8	0	0	128

- Conversion from a pixel in a depth image to 3D coordinate

A depth value d at (x,y) is converted using a scale parameter (s) and camera parameters (f_x, f_y, c_x, c_y) as follows.

$$s = 0.000124987$$

$$f_x = 475.903, f_y = 475.903, c_x = 315.53, c_y = 245.44 \text{ (original)}$$

$$f_x = 519.299, f_y = 511.099, c_x = 323.50, c_y = 238.00 \text{ (ours)}$$

$$Z = s*d$$

$$X = (x - c_x) / f_x * Z$$

$$Y = (y - c_y) / f_y * Z$$

- ID, position and size of each plant in original images

plant ID	upper left coord.	(width, height)
00	(61,57)	(166,190)
01	(232,128)	(166,190)
02	(434,261)	(166,190)
03	(404,67)	(204,185)
04	(44,254)	(204,185)

