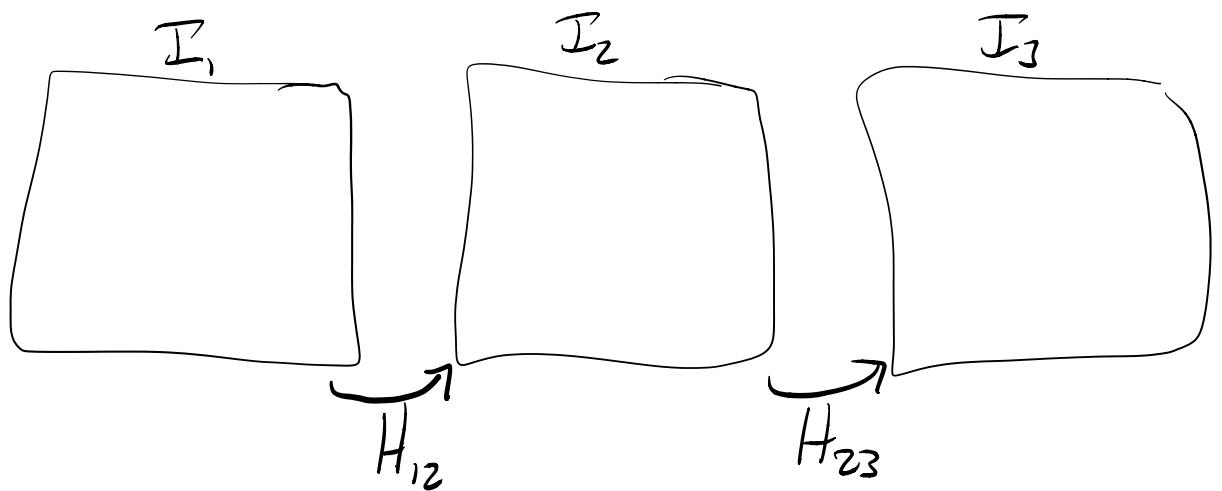
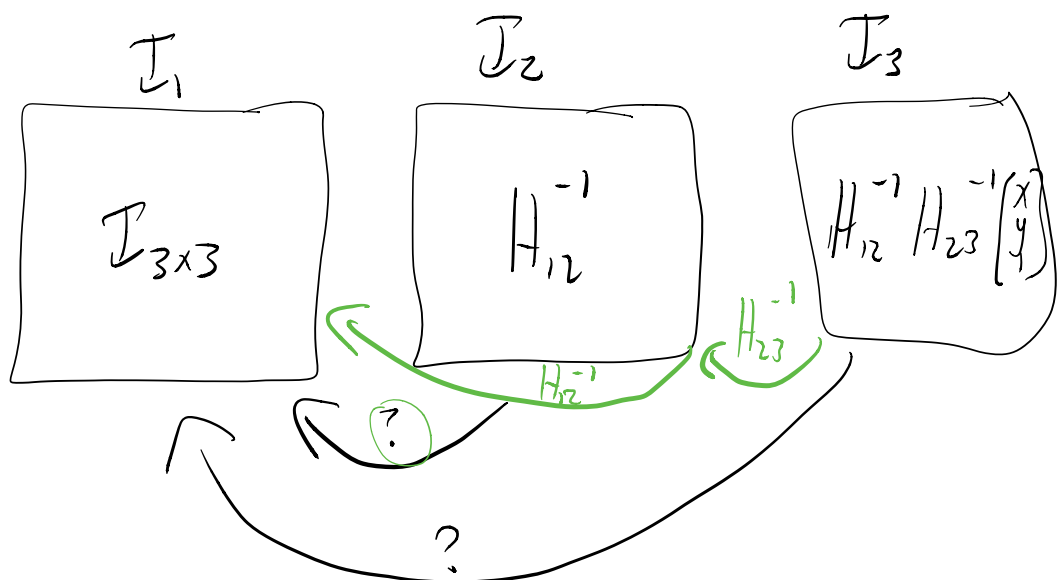


Stitching Panoramas

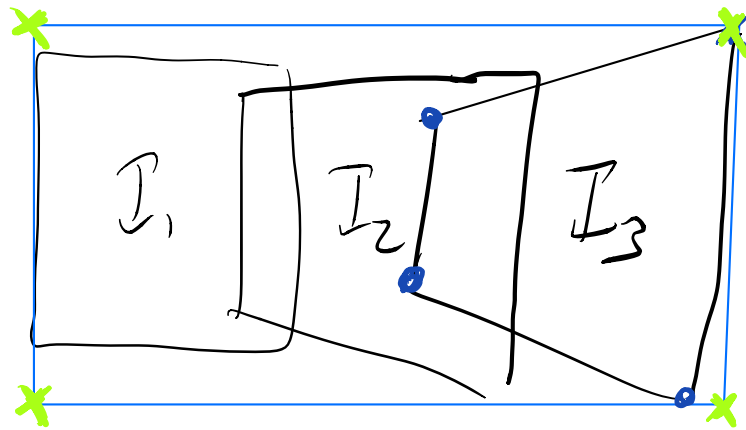
1. Capture images with some overlap
2. Use feature matching to find matches
3. Align each pair of neighboring images



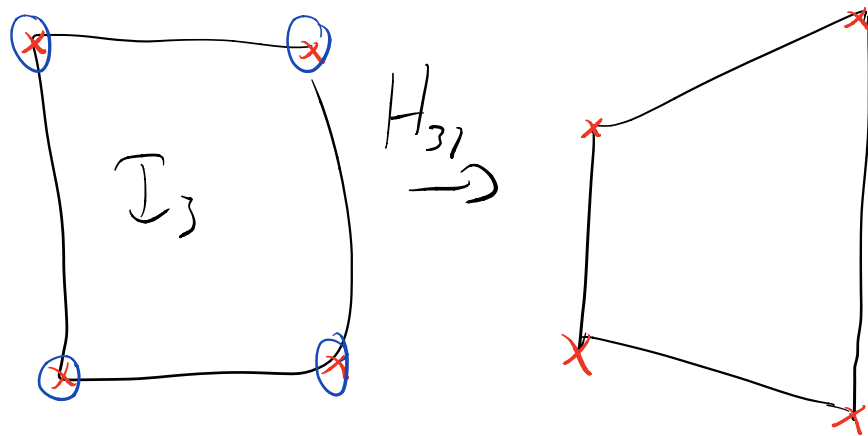
4. Compute each image's transform into I_1 's coordinate system



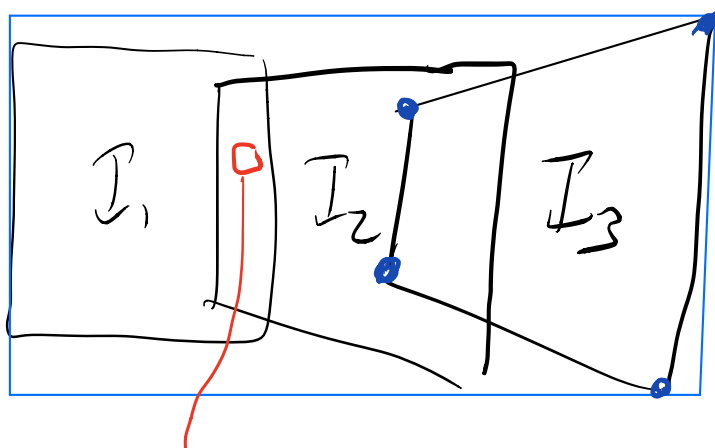
5. Find the size of the output img
accumulator



5a. Find the bounding box of a warped image:



6. Warp each image and add it to acc
for each I in $\{I_1, \dots, I_n\}$
for (y, x) in acc:



$$y', x' = H_{12}(y, x)$$

$$acc[y, x] = \text{interp}(I_2, y', x')$$

↓
2 images landed here!

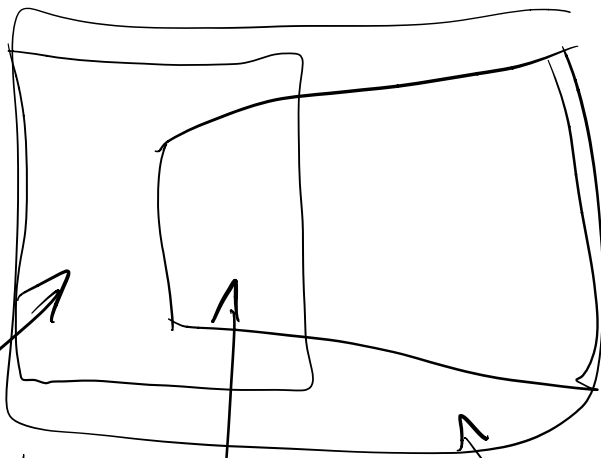
2nd one will overwrite

Solution: count weights of pixels that landed

in each acc pixel

Input pixel:

r	g	b	1
---	---	---	---



Same as above:

$$acc[y, x] += interp(I, y', x')$$

4th channel is 1

r	g	b	1
---	---	---	---

4th channel is 2

r	g	b	2
---	---	---	---

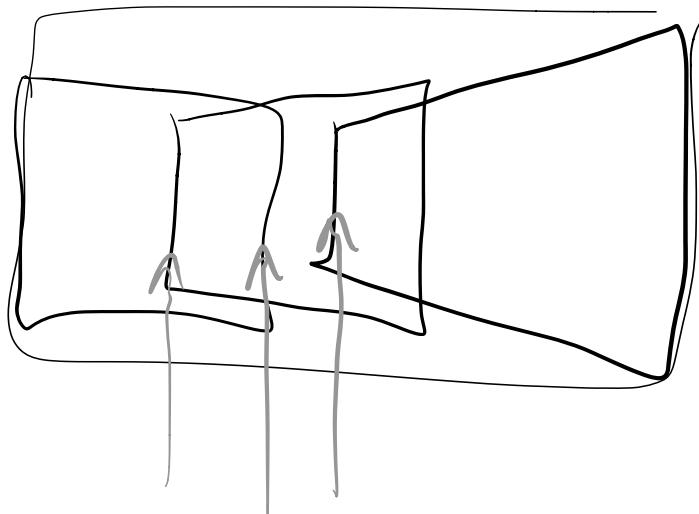
4th channel is 0

0	0	0	0
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At the end:

↙ avoid /0

$$acc = acc / acc[:, :, 3]$$



Sharp seams

Blending: hide the seams!

