Command

```
pythonw photometry_hst.py --ra 173.42306 --dec 0.72589793 --fits SN2015bn_F625W_drc.fits
```

Step 1: Administration

Summary of your input

Command

```
photometry_hst.py --ra 173.42306 --dec 0.72589793 --fits SN2015bn_F625W_drc.fits --ana-thresh
5 --det-thresh 5 --ap-diam 0.25 0.5 0.75 1.0 1.5 2.0 --ap-inner-annulus 1.25 --ap-outer-
annulus 2.5 --keeptemp False --loglevel INFO --outdir results/ --sex-loglevel WARNING --tol 2
```

Is the object in the image footprint?

Yes.

Step 2: Generate source catalogue

```
Path of the temporary files:
/var/folders/fk/8ny2rsqs0kgcgkhc1bqhbsrr0000gp/T/sewpy_workdir_szpkkf2n

WARNING: FITSFixedWarning: RADESYSO= 'ICRS '
syntactically valid WCS keyrecord has no effect. [astropy.wcs.wcs]
WARNING: FITSFixedWarning: The WCS transformation has more axes (2) than the image it is
associated with (0) [astropy.wcs.wcs]
```

Step 3: Background estimation (can take some time...)

```
WARNING: Input data contains invalid values (NaNs or infs), which were automatically masked.
[astropy.stats.sigma_clipping]
/Volumes/Home/steve/anaconda/envs/py36_temp/lib/python3.6/site-
packages/astropy/stats/sigma_clipping.py:165: RuntimeWarning: invalid value encountered in
greater
  _filtered_data.mask |= _filtered_data > max_value
/Volumes/Home/steve/anaconda/envs/py36_temp/lib/python3.6/site-
packages/astropy/stats/sigma_clipping.py:166: RuntimeWarning: invalid value encountered in
less
  _filtered_data.mask |= _filtered_data < min_value
/Volumes/Home/steve/anaconda/envs/py36_temp/lib/python3.6/site-
packages/photutils/segmentation/detect.py:128: RuntimeWarning: invalid value encountered in
greater
  check_normalization=True) > threshold)
```

Step 4: Perform aperture photometry

Step 5: Curve of growth analysis

Step 6: Make cutout

Step 7: Prepare output catalogue

Summary of the ZP measurement for each aperture

Zeropoint

METHOD	ZP	ZP_ERRP	ZP_ERRM	NUMBER	r(FWHM)	d(px)	d(arcsec)	MAG_3UL_GLOB
MAG_APER_0	25.741	N/A	N/A	N/A	N/A	5.000	0.250	25.846
MAG_APER_1	25.808	N/A	N/A	N/A	N/A	10.000	0.500	25.927
MAG_APER_2	25.827	N/A	N/A	N/A	N/A	15.000	0.750	26.301
MAG_APER_3	25.845	N/A	N/A	N/A	N/A	20.000	1.000	26.457
MAG_APER_4	25.860	N/A	N/A	N/A	N/A	30.000	1.500	26.149
MAG_APER_5	25.875	N/A	N/A	N/A	N/A	40.000	2.000	25.860

Summary of the photometry of your science object

Science

PROPERTY	VALUE	ERROR+	ERROR-	
FILENAME	nan	nan	nan	SN2015bn_F625W_drc.fits
DATE-OBS	nan	nan	nan	2017-06-01T00:00:00.000
MJD	nan	nan	nan	57905.0
EXPTIME	nan	nan	nan	2356.0
NCOMBINE	nan	nan	nan	4
RA	173.42307	nan	nan	degree
DEC	0.7258979	nan	nan	degree
X_IMAGE_EXP	2184.58	nan	nan	px

```
      Y_IMAGE_EXP  3171.429     nan     nan                    px
      X_IMAGE_OBS   2184.58     nan     nan                    px
      Y_IMAGE_OBS  3171.429     nan     nan                    px
    DISTANCE (px)       0.0     nan     nan                    px
DISTANCE (arcsec)       0.0     nan     nan                arcsec
       FNU_APER_0    0.6403 0.05577 0.05577               microJy
       MAG_APER_0    24.384   0.099   0.091                   mag
MAG_APER_0_2sigma    26.281     nan     nan                   mag
MAG_APER_0_3sigma    25.841     nan     nan                   mag
       FNU_APER_1     1.089 0.05194 0.05194               microJy
       MAG_APER_1    23.808   0.053   0.051                   mag
MAG_APER_1_2sigma    26.359     nan     nan                   mag
MAG_APER_1_3sigma    25.919     nan     nan                   mag
       FNU_APER_2     1.958 0.03748 0.03748               microJy
       MAG_APER_2     23.17   0.021   0.021                   mag
MAG_APER_2_2sigma    26.713     nan     nan                   mag
MAG_APER_2_3sigma    26.273     nan     nan                   mag
       FNU_APER_3     3.039 0.03327 0.03327               microJy
       MAG_APER_3    22.693   0.012   0.012                   mag
MAG_APER_3_2sigma    26.842     nan     nan                   mag
MAG_APER_3_3sigma    26.402     nan     nan                   mag
       FNU_APER_4     4.334 0.04375 0.04375               microJy
       MAG_APER_4    22.308   0.011   0.011                   mag
MAG_APER_4_2sigma    26.545     nan     nan                   mag
MAG_APER_4_3sigma    26.105     nan     nan                   mag
       FNU_APER_5     4.777  0.0563  0.0563               microJy
       MAG_APER_5    22.202   0.013   0.013                   mag
MAG_APER_5_2sigma    26.271     nan     nan                   mag
MAG_APER_5_3sigma    25.831     nan     nan                   mag
```

Step 9: Write results to file

Step 10: Remove all temps