

**Aero2Astro**  
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**(29/09/2021)**

Today i had trained Yolo v4 model upto 4800 epochs and performed evaluation.

Train :

```
calculation mAP (mean average precision)...
Detection layer: 139 - type = 28
Detection layer: 150 - type = 28
Detection layer: 161 - type = 28
396
detections_count = 1512, unique_truth_count = 663
class_id = 0, name = tower_lattice, ap = 99.87%          (TP = 273, FP = 15)
class_id = 1, name = tower_tucohy, ap = 93.32%          (TP = 158, FP = 22)
class_id = 2, name = tower_wooden, ap = 97.17%          (TP = 205, FP = 15)

for conf_thresh = 0.25, precision = 0.92, recall = 0.96, F1-score = 0.94
for conf_thresh = 0.25, TP = 636, FP = 52, FN = 27, average IoU = 76.38 %

IoU threshold = 50 %, used Area-Under-Curve for each unique Recall
mean average precision (mAP@0.50) = 0.967867, or 96.79 %
Total Detection Time: 48 Seconds
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Test :

```
calculation mAP (mean average precision)...
Detection layer: 139 - type = 28
Detection layer: 150 - type = 28
Detection layer: 161 - type = 28
124
detections_count = 510, unique_truth_count = 202
class_id = 0, name = tower_lattice, ap = 78.68%          (TP = 68, FP = 15)
class_id = 1, name = tower_tucohy, ap = 81.51%          (TP = 38, FP = 9)
class_id = 2, name = tower_wooden, ap = 54.16%          (TP = 36, FP = 13)

for conf_thresh = 0.25, precision = 0.79, recall = 0.70, F1-score = 0.75
for conf_thresh = 0.25, TP = 142, FP = 37, FN = 60, average IoU = 63.21 %

IoU threshold = 50 %, used Area-Under-Curve for each unique Recall
mean average precision (mAP@0.50) = 0.714494, or 71.45 %
Total Detection Time: 15 Seconds
```

Get\_points\_flag: