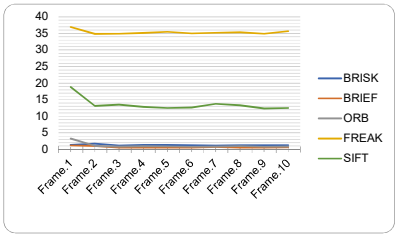
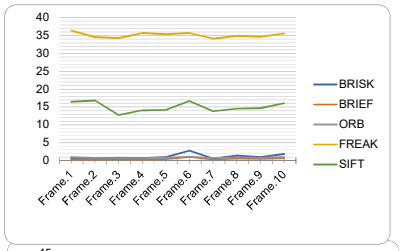
## Descriptor extraction time

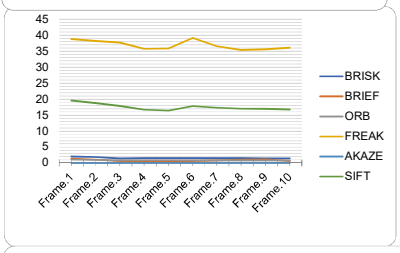
| Detectors | Frame | Descriptors | | | | | |
|---|---|---|---|---|---|---|---|
| | | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
| Shi-Thomasi | Frame.1 | 1.38 | 1.17 | 3.26 | 36.95 | | 18.81 |
| | Frame.2 | 1.7 | 1.04 | 1.03 | 34.88 | | 13.14 |
| | Frame.3 | 1.19 | 0.51 | 0.81 | 34.92 | | 13.53 |
| | Frame.4 | 1.3 | 0.51 | 0.91 | 35.16 | | 12.82 |
| | Frame.5 | 1.3 | 0.52 | 0.86 | 35.52 | | 12.48 |
| | Frame.6 | 1.21 | 0.53 | 0.8 | 34.98 | | 12.6 |
| | Frame.7 | 1.12 | 0.7 | 0.83 | 35.23 | | 13.78 |
| | Frame.8 | 1.21 | 0.53 | 0.97 | 35.37 | | 13.31 |
| | Frame.9 | 1.21 | 0.5 | 0.8 | 34.91 | | 12.36 |
| | Frame.10 | 1.25 | 0.64 | 0.83 | 35.68 | | 12.5 |



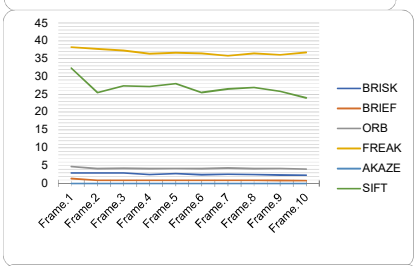

| | Frame | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
|---|---|---|---|---|---|---|---|
| HARRIS | Frame.1 | 0.69 | 0.34 | 1 | 36.37 | | 16.48 |
| | Frame.2 | 0.63 | 0.29 | 0.75 | 34.56 | | 16.83 |
| | Frame.3 | 0.8 | 0.39 | 0.75 | 34.27 | | 12.75 |
| | Frame.4 | 0.75 | 0.32 | 0.73 | 35.7 | | 14.07 |
| | Frame.5 | 0.99 | 0.43 | 0.8 | 35.36 | | 14.18 |
| | Frame.6 | 2.83 | 1.01 | 1.1 | 35.7 | | 16.68 |
| | Frame.7 | 0.58 | 0.32 | 0.75 | 34.13 | | 13.82 |
| | Frame.8 | 1.42 | 0.56 | 0.91 | 34.93 | | 14.53 |
| | Frame.9 | 0.99 | 0.49 | 0.83 | 34.63 | | 14.68 |
| | Frame.10 | 1.86 | 0.68 | 0.99 | 35.57 | | 16.05 |



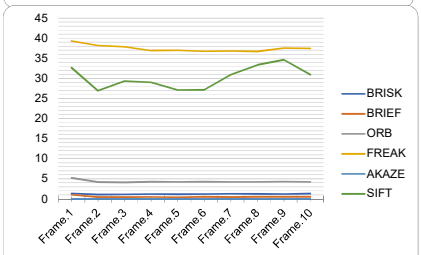

| | Frame | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
|---|---|---|---|---|---|---|---|
| FAST | Frame.1 | 2.06 | 1.32 | 1.08 | 38.8 | | 19.56 |
| | Frame.2 | 1.89 | 1.1 | 1 | 38.16 | | 18.74 |
| | Frame.3 | 1.42 | 0.61 | 0.84 | 37.68 | | 17.88 |
| | Frame.4 | 1.57 | 0.64 | 0.9 | 35.76 | | 16.71 |
| | Frame.5 | 1.52 | 0.62 | 0.89 | 35.86 | | 16.42 |
| | Frame.6 | 1.52 | 0.62 | 0.83 | 39.13 | | 17.83 |
| | Frame.7 | 1.57 | 0.84 | 0.87 | 36.55 | | 17.33 |
| | Frame.8 | 1.56 | 1.08 | 0.86 | 35.38 | | 17.05 |
| | Frame.9 | 1.43 | 1.2 | 0.84 | 35.56 | | 16.97 |
| | Frame.10 | 1.47 | 0.64 | 0.86 | 36.12 | | 16.75 |



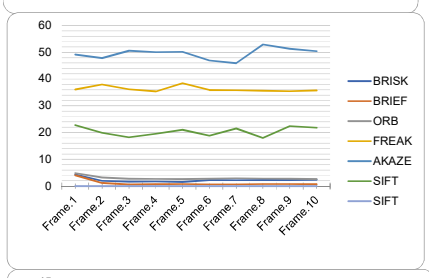

| | Frame | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
|---|---|---|---|---|---|---|---|
| BRISK | Frame.1 | 2.96 | 1.38 | 4.75 | 38.21 | | 32.31 |
| | Frame.2 | 2.96 | 0.87 | 4.18 | 37.73 | | 25.5 |
| | Frame.3 | 2.94 | 0.91 | 4.26 | 37.27 | | 27.35 |
| | Frame.4 | 2.49 | 0.88 | 4.19 | 36.35 | | 27.17 |
| | Frame.5 | 2.74 | 0.91 | 4.21 | 36.64 | | 27.99 |
| | Frame.6 | 2.46 | 0.89 | 4.15 | 36.47 | | 25.48 |
| | Frame.7 | 2.61 | 0.92 | 4.33 | 35.8 | | 26.5 |
| | Frame.8 | 2.49 | 0.85 | 4.13 | 36.46 | | 26.9 |
| | Frame.9 | 2.35 | 0.82 | 4.2 | 36.09 | | 25.84 |
| | Frame.10 | 2.33 | 0.8 | 4.03 | 36.72 | | 24 |

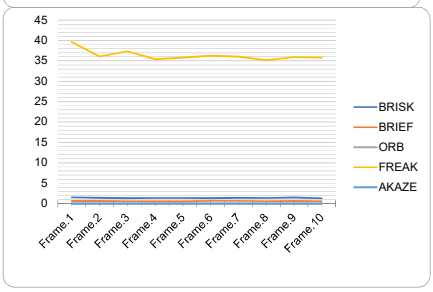



| | Frame | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
|---|---|---|---|---|---|---|---|
| ORB | Frame.1 | 1.39 | 1.04 | 5.24 | 39.31 | | 32.69 |
| | Frame.2 | 1.11 | 0.49 | 4.19 | 38.19 | | 26.92 |
| | Frame.3 | 1.15 | 0.48 | 4.12 | 37.86 | | 29.31 |
| | Frame.4 | 1.2 | 0.5 | 4.3 | 36.94 | | 29 |
| | Frame.5 | 1.16 | 0.44 | 4.23 | 36.99 | | 27.1 |
| | Frame.6 | 1.2 | 0.53 | 4.29 | 36.77 | | 27.15 |
| | Frame.7 | 1.33 | 0.46 | 4.25 | 36.84 | | 30.93 |
| | Frame.8 | 1.23 | 0.53 | 4.22 | 36.7 | | 33.36 |
| | Frame.9 | 1.22 | 0.56 | 4.34 | 37.55 | | 34.63 |
| | Frame.10 | 1.35 | 0.53 | 4.23 | 37.45 | | 30.95 |




| | Frame | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
|---|---|---|---|---|---|---|---|
| AKAZE | Frame.1 | 4.31 | 4.04 | 4.86 | 36.12 | 49.16 | 22.79 |
| | Frame.2 | 1.97 | 1.14 | 3.22 | 37.96 | 47.86 | 19.94 |
| | Frame.3 | 1.66 | 0.61 | 2.72 | 36.14 | 50.57 | 18.27 |
| | Frame.4 | 1.71 | 0.66 | 2.66 | 35.37 | 50.06 | 19.52 |
| | Frame.5 | 1.57 | 0.71 | 2.64 | 38.45 | 50.13 | 21.07 |
| | Frame.6 | 2.27 | 0.64 | 2.71 | 35.87 | 46.97 | 18.83 |
| | Frame.7 | 2.19 | 0.65 | 2.95 | 35.81 | 45.92 | 21.51 |
| | Frame.8 | 2.25 | 0.74 | 2.8 | 35.64 | 52.89 | 17.98 |
| | Frame.9 | 2.25 | 0.81 | 2.74 | 35.46 | 51.33 | 22.44 |
| | Frame.10 | 2.35 | 0.67 | 2.64 | 35.73 | 50.4 | 21.8 |




| | Frame | BRISK | BRIEF | ORB | FREAK | AKAZE | SIFT |
|---|---|---|---|---|---|---|---|
| SIFT | Frame.1 | 1.53 | 0.62 | | 39.63 | | 77.81 |
| | Frame.2 | 1.43 | 0.65 | | 36.07 | | 66.43 |
| | Frame.3 | 1.33 | 0.6 | | 37.37 | | 65.79 |
| | Frame.4 | 1.41 | 0.57 | | 35.41 | | 66.98 |
| | Frame.5 | 1.4 | 0.57 | | 35.81 | | 64.68 |
| | Frame.6 | 1.33 | 0.68 | | 36.3 | | 63.28 |
| | Frame.7 | 1.43 | 0.66 | | 36.04 | | 63.33 |
| | Frame.8 | 1.38 | 0.6 | | 35.19 | | 64.37 |
| | Frame.9 | 1.5 | 0.63 | | 35.96 | | 64.45 |
| | Frame.10 | 1.31 | 0.59 | | 35.8 | | 63.31 |