



EYE Robot

By  Alpro

Alcon



MEET THE TEAM



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Alcon

NGENUITY 3D

Visualization System

&  EYE **Robot**

MOTIVATION

- Demand
- Volume
- Safety

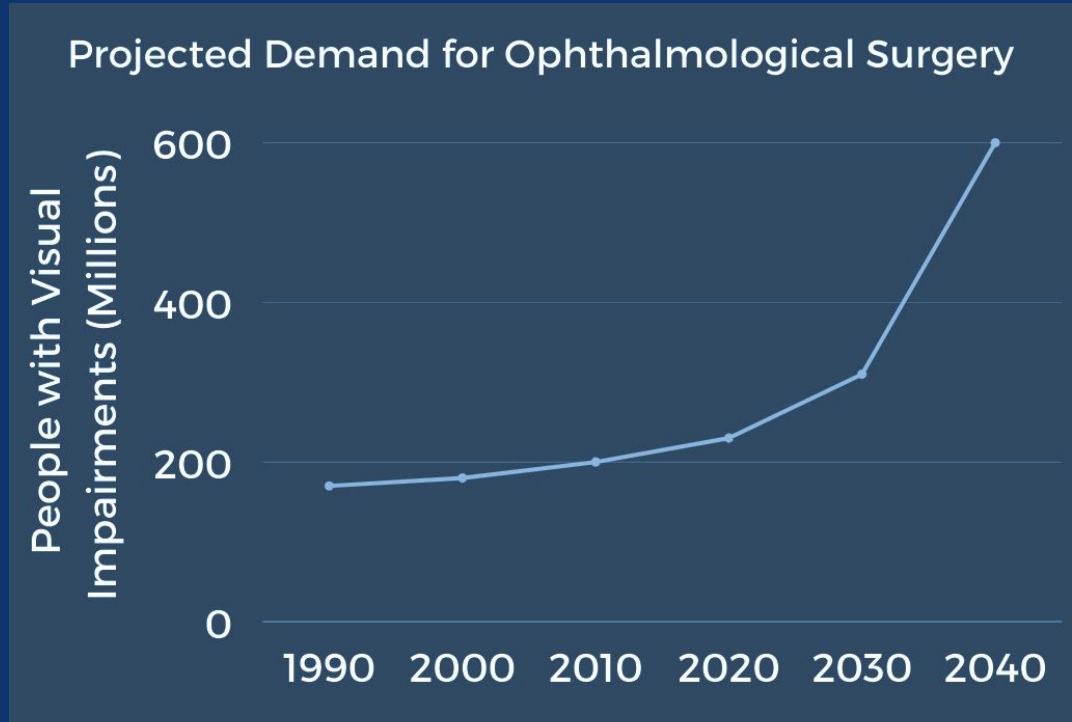


Figure 1: Bourne et al.

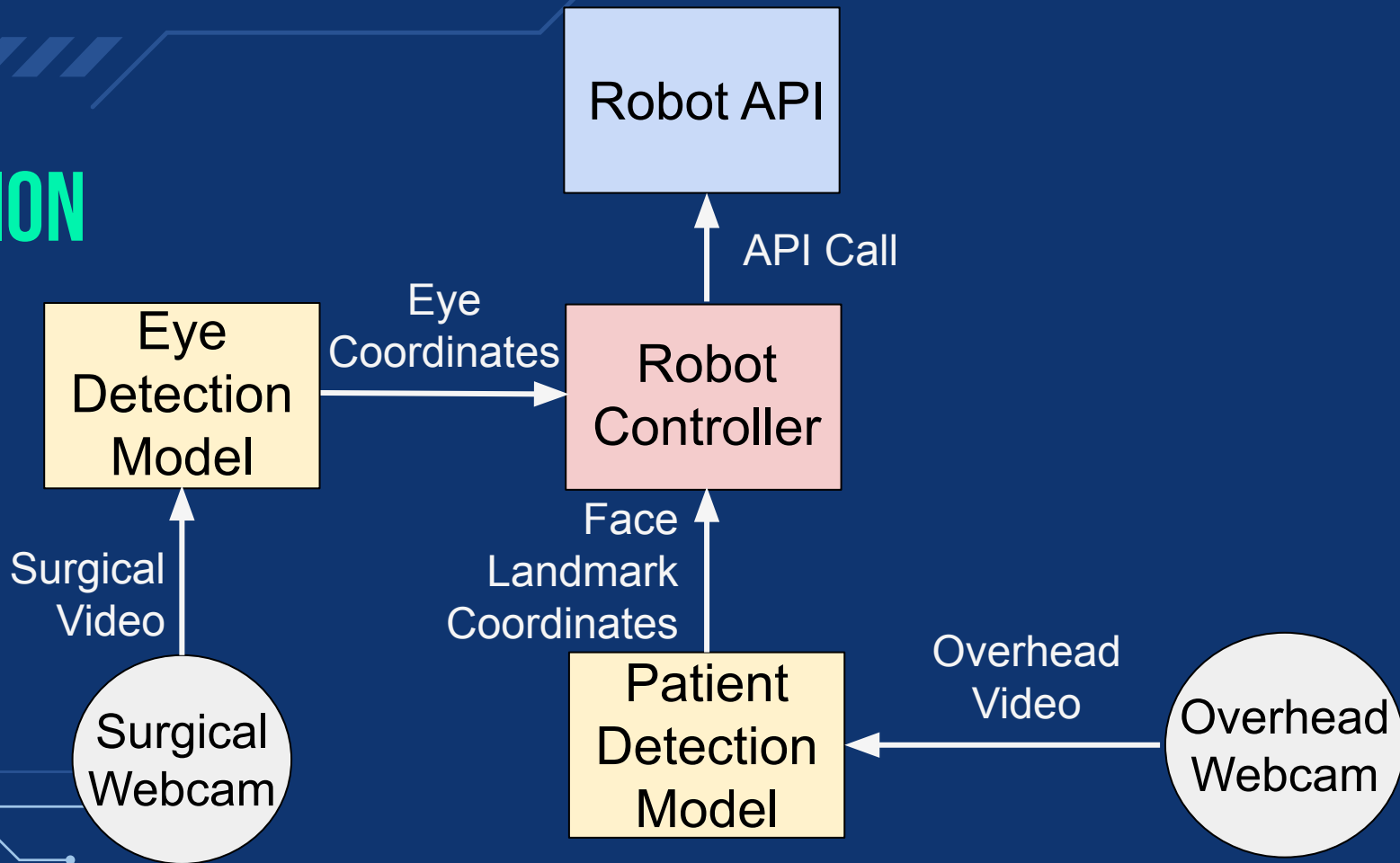
GOALS

- Efficiency
- Accuracy
- Usability

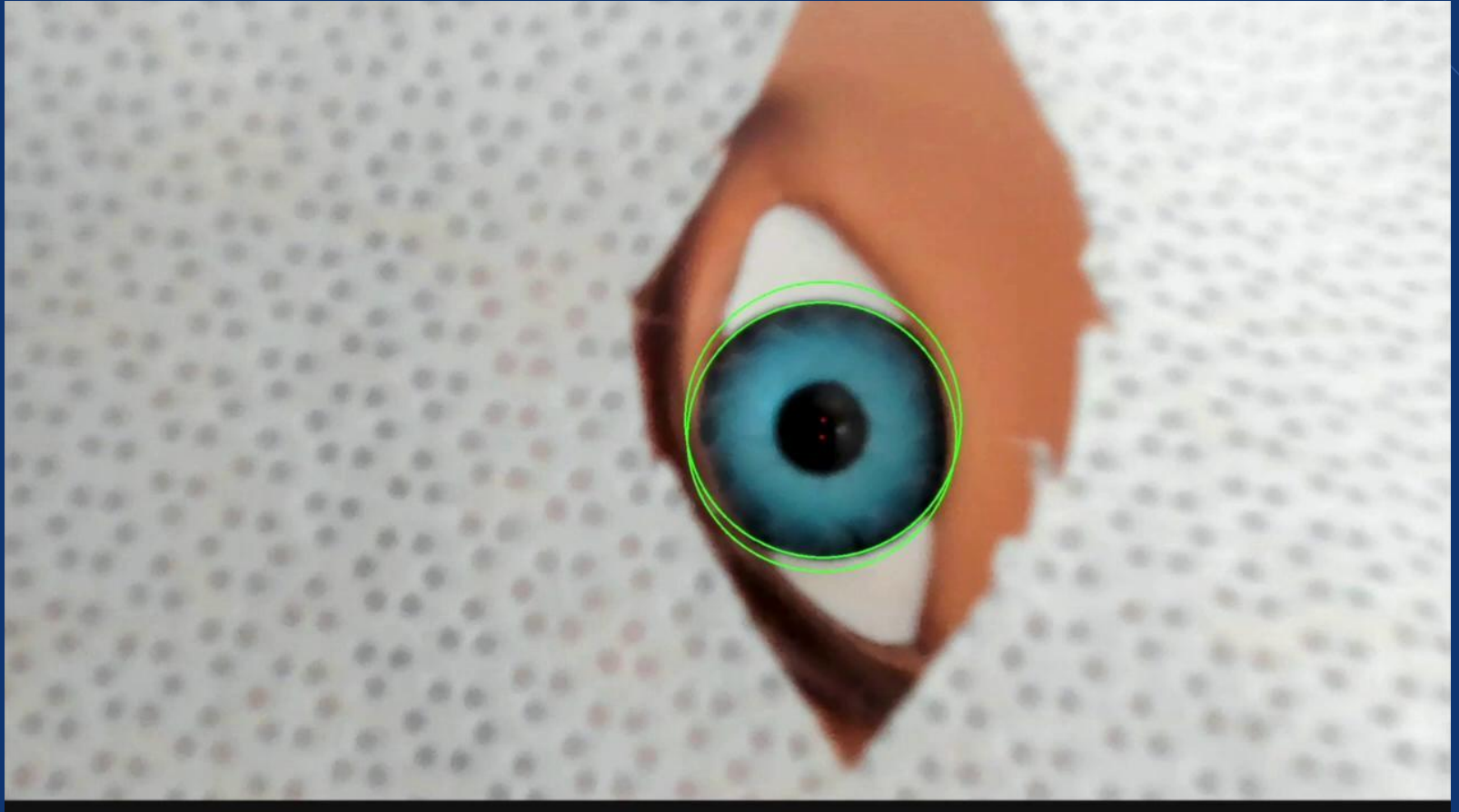
EYE Robot



SOLUTION



EYE DETECTION DEMO



BUT WAIT... THERE'S MORE



FACE DETECTION



EYE DETECTION



ADDITIONAL
FEATURES

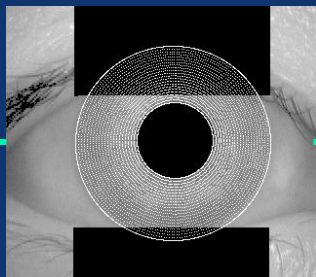


LIVE DEMO

 EYE Robot



PATIENT RECOGNITION



1	0	1	0	0	...	0	1	1
0	0	0	1	1	...	1	0	1
0	1	1	0	0	...	0	0	0
1	1	1	0	1	...	0	1	1
0	0	0	1	0	...	1	1	1
0	1	1	1	1	...	0	0	0
0	1	0	0	0	...	1	0	1
0	1	1	1	0	...	1	1	1

```
2ad7954dc8d69f5439
86beb8188a4c1f040e
f86e423ffac41e6d37
0e30dd667f2ad7954d
c8d69f543986beb818
8a4c1f040ef86e423f
fac41e6d370e30dd66
7fasdasdas
```

Iris feature
extraction

Encoding

Encryption

Daugman's Algorithm:

- Iris Feature Extraction
- Encoding



FINAL THOUGHTS

EFFICIENCY

- Decreased setup time
- Higher volume of surgeries

ACCURACY

- Consistent and reliable image
- Multiple levels of fail safe

USEABILITY

- Clean dark mode design
- Very intuitive GUI



QUESTIONS?