

Cyclops

Real-time bicycle crash detection and blindspot monitoring.

What Cyclops offers

1.

Blindspot
Monitoring

2.

Convenient
Mounting

3.

Crash
Detection

4.

Video Export

Blindspot Monitoring



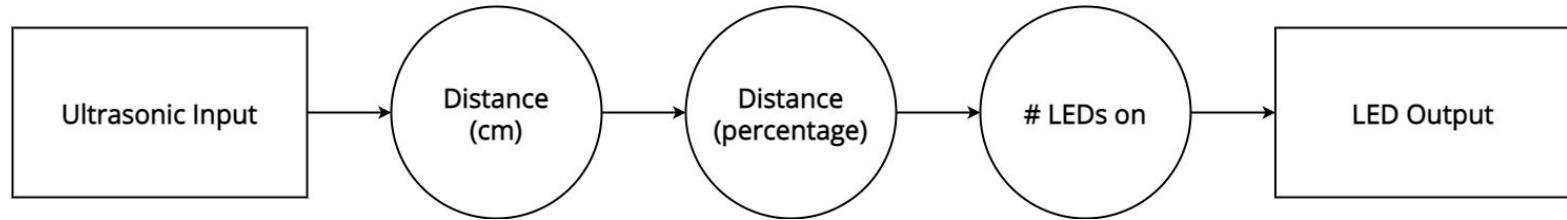
- Ultrasonic sensor relays distance to LEDs
- 2m detection range

Next Steps

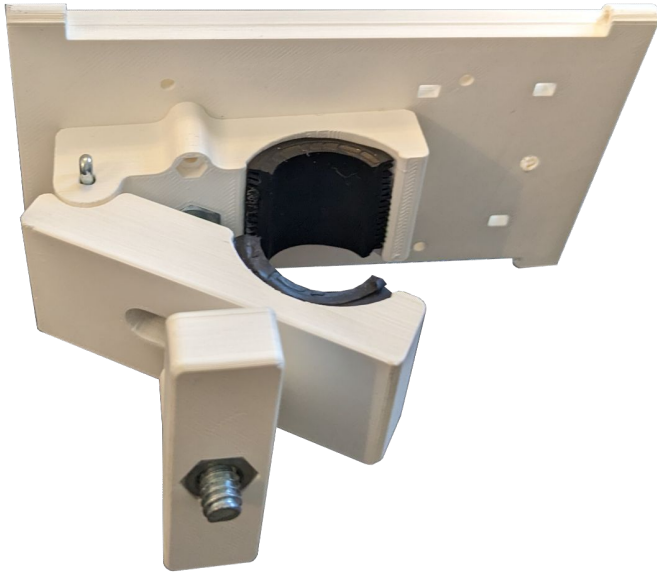
- 8m detection range



Blindspot Monitoring Algorithm



Convenient Mounting



- Turn nut to clamp/release housing
- Keeps together as a single unit
- Rubber grips

Crash Detection

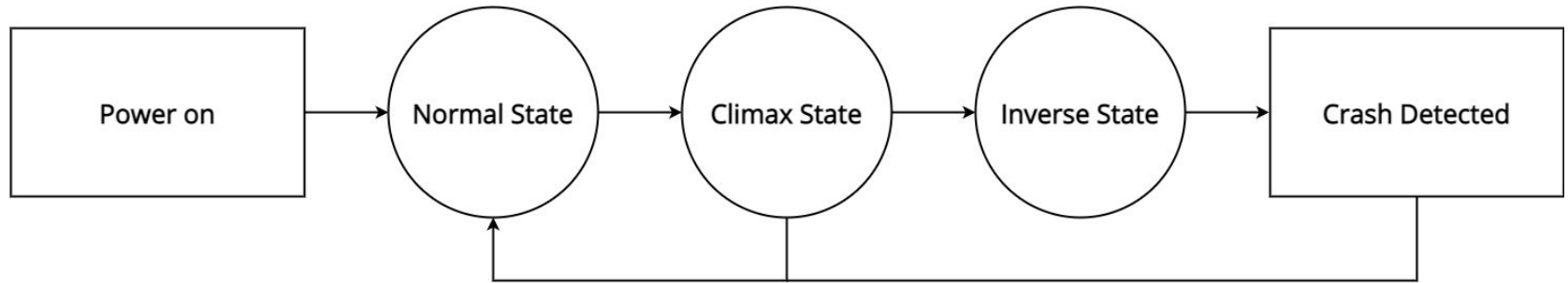
- Algorithm to interpret accelerometer readings
- On crash, 60% true positive rate

Next steps

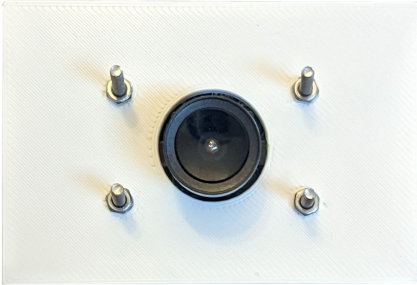
- On crash, 95% true positive rate
- Eliminate false positives



Crash Detection Algorithm



Video Export

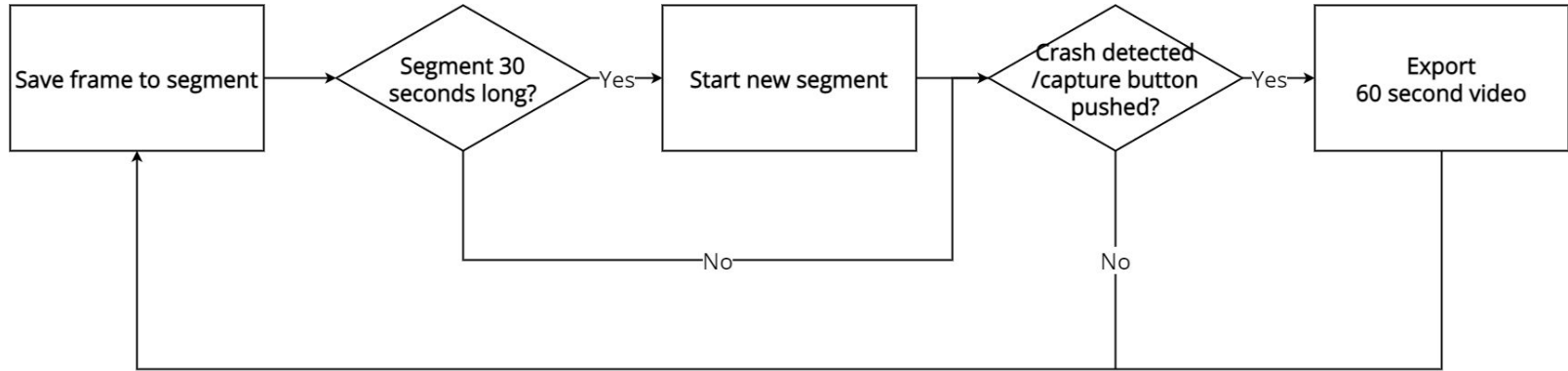


- On crash or capture, saves last 60 seconds of video to disk
- Quality is 640p, 24fps

Next Steps

- Save video to thumb drive
- 720p, 30fps
- Decrease CPU utilization

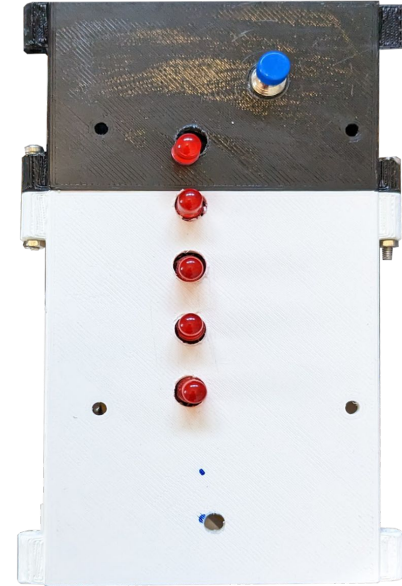
Video Export Algorithm



User Interface



- Off button
- Power indicator LED
- Blindspot sensor port
- On button



Installation



