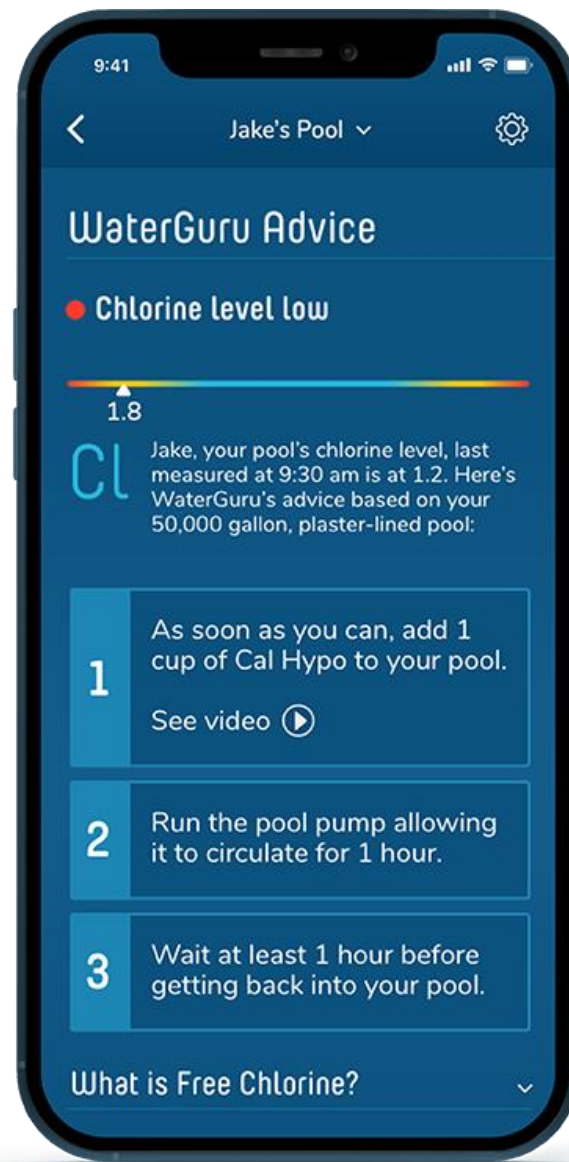


The Smart Pool

Data Transparency in Public Space
Conference: Possible Futures
Alec Shuldiner, PhD, Autodesk, Inc.
October 2021







POOLEYE®

SWIMMING POOL ALARM SYSTEMS

MODEL NO. PE20
OWNER'S MANUAL





CAUTION

THE SWIMMING POOL RULES

4 FT

How many people were in the pool today?

36 registered, but at least 37 unique users.

Shuldiner, family of four, brought five

ANNE

8/11/21

BROWN - 3

NEHM - 1

Talbot - 3

Whippen - 4

Rivera 3

Coyote 2

benham 2

KRILL 1

Smith 2

Shuldiner 4

ESSMAN (3)

JoAnna Javel 1

Sam Herbertson

Christopher Ris

Paul + Sam Wilson

Zaslow 2

Catherine Fehrmann 1

Probably actually 2
coyotes, not humans

Climate challenges:

Pandemic:

No guests allowed without payment → No guests allowed at all



Pool is here

SF

SMOKE

LA

Climate challenges:

Pandemic:

No guests allowed without payment → No guests allowed at all

Fire:

Water chemistry must be checked daily → Smoke particulates damage filter so air conditions must be monitored in real time

Drought is Here Conserve Water

Learn more at MarinWater.org/Conserve



Climate challenges:

Pandemic:

No guests allowed without payment → No guests allowed at all

Fire:

Water chemistry must be checked daily → Smoke particulates damage filter so air conditions must be monitored in real time

Drought:

Use of pool cover is desirable → Use of pool cover is mandatory and may be audited

Climate disaster is creating new use cases that demand IoT solutions

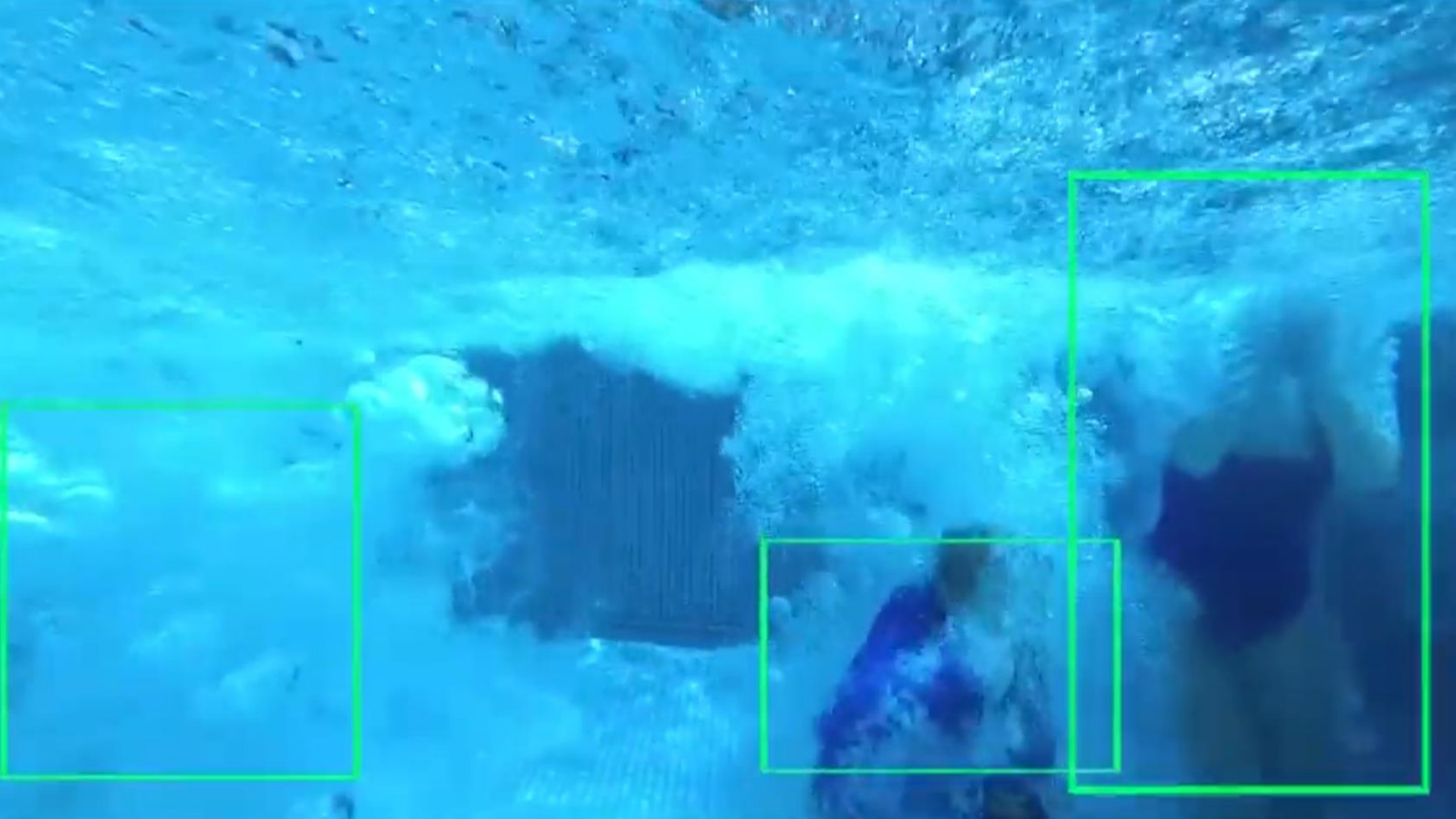


POOL SAFETY REDEFINED

Protect Your Pool With The Only AI Based Drowning Detection System

[ORDER](#)







PoolEye Inground/Aboveground Immersion Pool Alarm – Battery Powered Safety Remote Receiver, for Sizes up to 20' x 40' – ASTM Compliant Water Motion Sensor, PE23, White/Blue

[Visit the PoolEye Store](#)

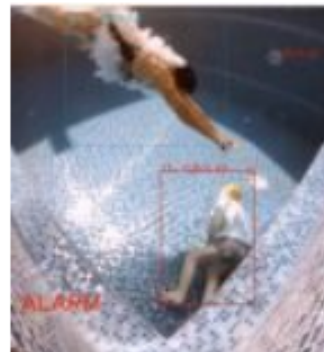
★★★★☆ 230 ratings

Was: \$141.39 [Details](#)

Price: **\$134.99**

- Price/subscription
- Reliability
- Availability

Which will win?



CORAL MANTA 3000

Uses Solar Panels. Out of stock until next summer

Cost: \$2,499

Climate disaster is creating new use cases that demand IoT solutions

Current IoT default is cameras + ML

ATTENTION

SWIMMERS !!

BABY RATTLE SNAKES

ARE AROUND THE POOL

AND THE CHANGING AREA

CHECK YOUR TOWELS + BAGS

Climate disaster is creating new use cases that demand IoT solutions

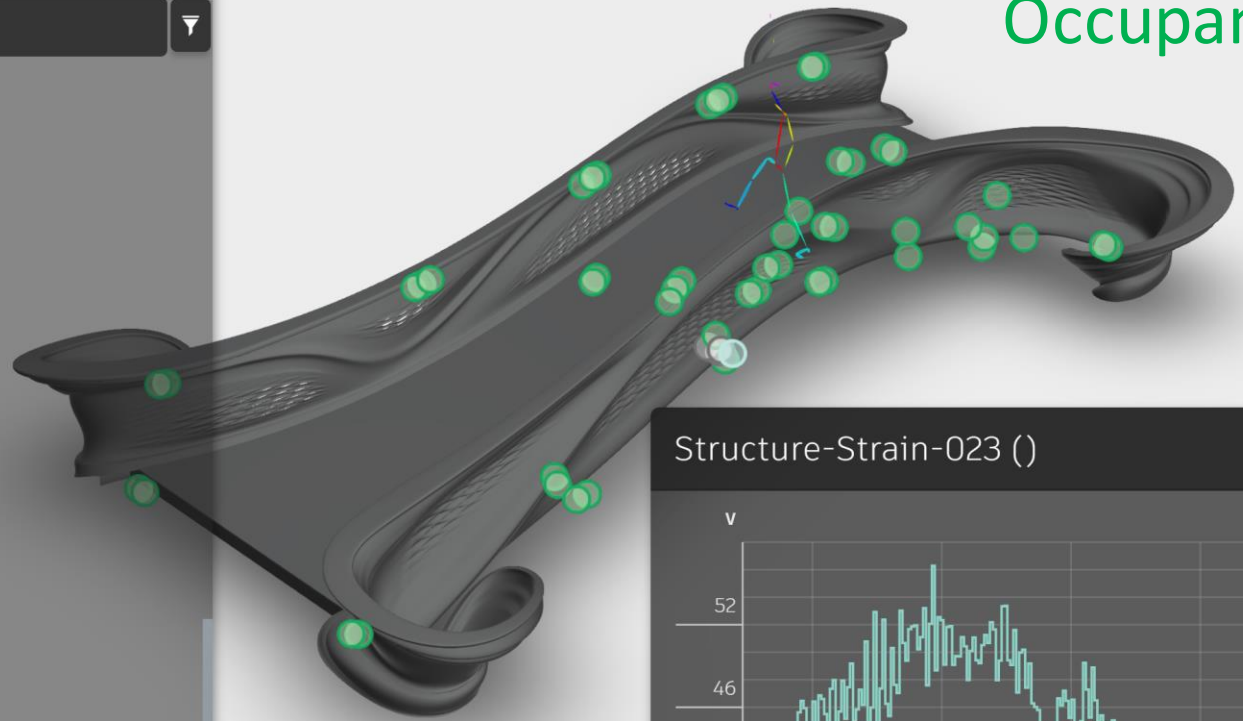
Current IoT default is cameras + ML

Probable future: Urgency of climate disaster outweighs need to protect privacy/anonymity/freedom

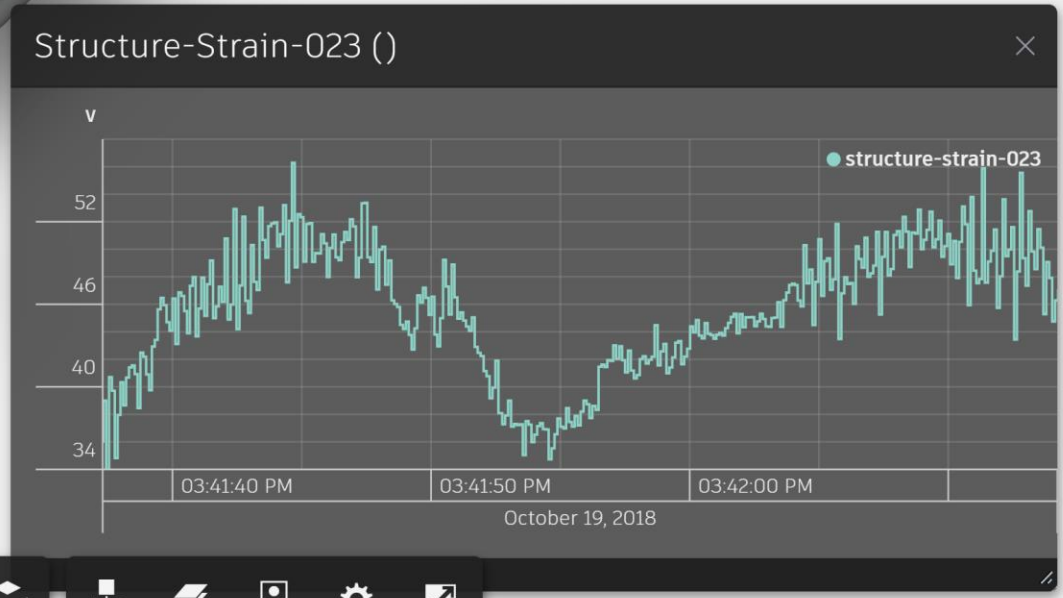


Sensor List

- Search
- structure-strain-023
 - structure-strain-024
 - structure-strain-025
 - structure-strain-026
 - structure-strain-031
 - structure-strain-032
 - structure-strain-033
 - structure-strain-035
- Unpositioned Sensors (7)
- camera-01-video
 - camera-02-pose3d
 - camera-02-video



Occupancy: n= 1



MX3D

As advocates for data transparency we should advocate these IoT design principles:

- Sensor minimization: fewer, simpler, less exotic
- Sensors that make sense for the thing, not the person
- Explainable, parsimonious ML...if at all



Abstract: Though not widely recognized as such, demonstrating models for the ethical collection and use of data in public spaces is a matter of real urgency. With few exceptions, “smart cities” solutions are today essentially optional, typically adopted in the name of experimentation and research rather than as a means of addressing specific and pressing needs. That is soon to change: in the face of multiple and increasingly severe disasters brought on by climate disruption, cities will have to get smart or die. This imperative will translate into the unfettered adoption of IoT technologies and, with them, whatever architecture and philosophy they embody. If the dominant architecture is machine learning models built on video data, and the dominant philosophy one of at best lightly regulated surveillance, then the panicked rollout of smart solutions will result in public spaces full of cameras generating data streams consumed by opaque ML at the cost of privacy, anonymity, and personal freedom. To avoid this future, the active deployment and demonstration of alternate models is an imperative: we must prove the value and practicality of smart solutions that employ sensing and analytics tailored to address clearly defined use cases with the explicit goal of avoiding surveillance-prone technologies, and we must do so before it is too late. In this talk, I use the admittedly farcical example of the smart pool to illustrate the deplorable path of current development, already well underway in your neighbor’s backyard.

Data Transparency in Public Space



Conference
6 & 7 October 2021

Call for submissions

Abstracts, papers, workshops, posters, and other creative work

The NWO funded research group BRIDE (BRIdging Data in the built Environment) and AMS Institute's Responsible Sensing Lab are coming together to co-host a conference on data transparency in public space.

Cities have increasingly been collecting and analyzing data generated from sensors in public space. This conference will explore how data collecting capabilities and uses are made available (and understandable) to the general public.

Scholars, activists, legal experts, city planners, citizens, data scientists, and students will come together to better understand:

- The global legal status of data transparency in public space
- How data transparency in public space works in practice
- Prototypes and ideas for the future based on the needs of the general public as well as corporate and governmental stakeholders.

We welcome you either virtually or in person with us in Amsterdam (limited "in-person" space available) to discuss and learn about these issues.

Apply through: <https://easychair.org/conferences/?conf=dtps2021>
Submission deadline: 15th of August 2021

More information: <https://www.utwente.nl/en/bms/bride/DTPS2021>
For questions email: dtps2021-bms@utwente.nl