

MPS Solar Stick™

Pilot Data Report
July 1- Aug 10th, 2022



Safety Stick Design



Patent Information



US 20210150246A1

(19) **United States**

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HUDSON et al. (43) **Pub. Date: May 20, 2021**

(54) **DEVICE, METHOD AND SYSTEM FOR DETECTING PARKING IN A NO PARKING AREA**

G06T 7/13 (2006.01)
G06T 7/70 (2006.01)
E01F 13/02 (2006.01)
E01F 9/615 (2006.01)

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(52) **U.S. CL.**
 CPC *G06K 9/3241* (2013.01); *G06K 9/00624*
 (2013.01); *G06T 7/13* (2017.01); *G06T*
2207/30264 (2013.01); *E01F 13/026*
 (2013.01); *E01F 9/617* (2016.02); *G06K*
9/00771 (2013.01); *G06T 7/70* (2017.01)

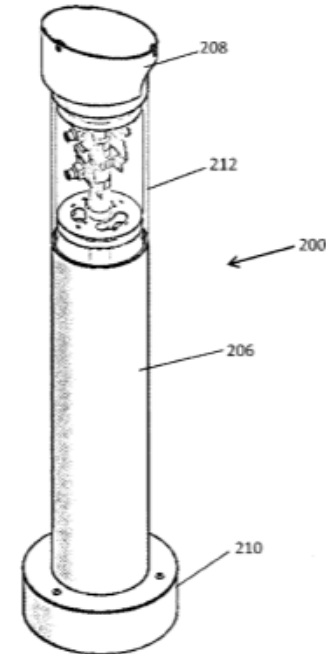
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(57) **ABSTRACT**

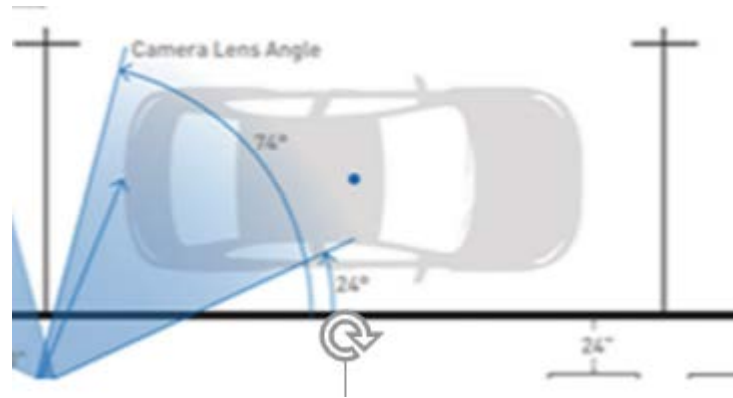
Publication Classification

(51) **Int. CL**
G06K 9/32 (2006.01)
G06K 9/00 (2006.01)

as a bollard that includes a camera secured to a center pole extending vertically upwards inside of the bollard. The camera can be located along the center pole so that the camera views outward from the bollard via a window section of the bollard.



How it Operates





Location of Study



&



240 Elm St,
Somerville,
MA 02144





246 Elm St,
Somerville,
MA 02144



Executive Summary

1. Three Solar Powered Safety Sticks

2. Two monitoring bus stop and fire hydrant

3. One monitoring no parking zone across the street

3. 40 days of data

•*Some data interruptions

4. Total violation sessions 420

5. Violations per day 10.5

6. Violations by time of day
80% between 8pm and 11pm

Total & duration of Violations Sessions 420

7/1- 8/10

Time	Sessions	%
90 Sec	177	42%
3-10 min	152	36%
11-19 min	46	11%
>20 min	45	11%
Longest	1:08	
	420	

Apart from the direct effects, it should be noted that the sum of all these time periods shows the **delay imposed** on a bus by a bus stop. This in turn affects the commercial speed of the bus service – the distance divided by the total travel time between any two points of the route – **because it adds to the time taken to operate from the start to the end of a bus route.**

•Effect of Passenger–Bus–Traffic Interactions on Bus Stop Operations August 2005, [Transportation Planning and Technology](#) 28(4):273-292

DOI:[10.1080/03081060500247747](https://doi.org/10.1080/03081060500247747)

Violations breakdown

Mon	57	14%
Tues	56	13%
Wed	53	13%
Thurs	52	12%
Fri	79	19%
Sat	71	17%
Sun	52	12%



SEARCH

Violation # Plate

Violation or Plate #

FILTERING BY DATE ✕

2022-07-01

TO

2022-08-12

VIOLATION STATUS

ALL ▾

VIOLATION NOTIFICATIONS

ANY ▾

PROCESSING STATUS

ALL ▾

SORT BY

DURATION ▾

Metered Parking Session

Normal

[Details](#)

[Parking Fee Payments](#)

[Owner](#)

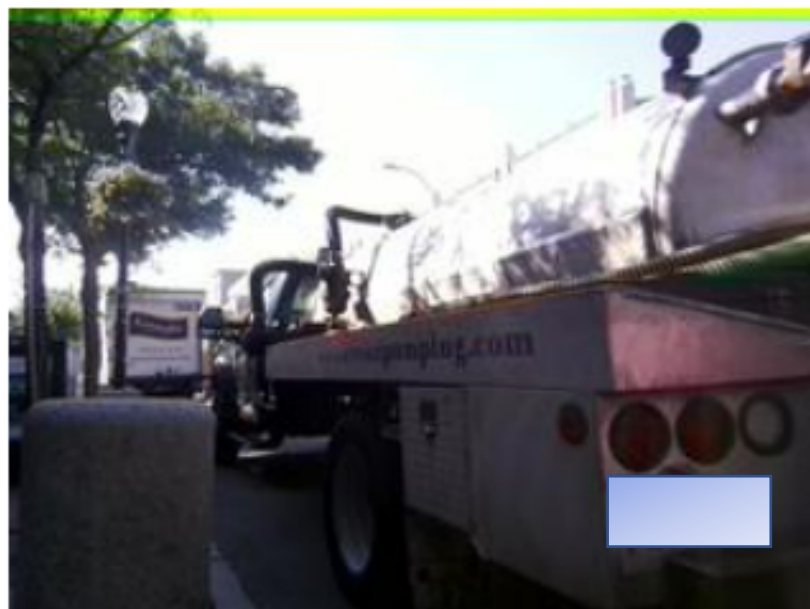
[Owner Lookup](#)

[Push Notification Files](#)

[Previous Session](#)

Session Details

Meter	SV002	Paio
Address	133 Holland St, Somerville, MA 02144	Initi Puro
Time Parked	2022-08-02 9:35:40 am EDT	Tim Befo
Initial Time Expired	NO PURCHASE	Sess
Time Exited	2022-08-02 10:44:01 am EDT	Sen
Duration (HH:MM:SS)	01:08:21	



License Plate

Province/State

Vehicle Registration Type

Violations

#369 on 2022-08-02 9:35:40 am EDT

[Display Violation](#)

SAMPLE

Violations Parking Lot Sessions Reports Health Feedback Somerville, MA Settings Rob Matthews

SEARCH Violation # Plate Violation or Plate #

FILTERING BY DATE 2022-07-01 TO 2022-08-12


VIOLATION STATUS ALL

VIOLATION NOTIFICATIONS ANY

PROCESSING STATUS ALL

SORT BY ISSUED TIMESTAMP

Initial Picture



License Plate

Province/State

Vehicle Registration Type

Taken At 2022-08-06 9:10:15 pm EDT

Result Unsuccessful

Plate NA

State/Province NA

Confidence NA

Vehicle Present N/A

Draw ROI Save ROI Remove ROI

Vehicle Details LPR

Fine Fee No

NO PURCHASE

N/A

0b79363e15d011edb918e9fc9b60fc27

70970291

new

SAMPLE VIOLATION REPORT

Violations

Parking Lot Sessions

Reports ▾

Health ▾

Feedback

Somerville, MA

Settings

Rob Matthews ▾

Violations Report

SEARCH

Violation # Plate

59

 SEARCHING ALL DATES ▾

VIOLATION STATUS




ALL ▾

VIOLATION NOTIFICATIONS

ANY ▾

Download Results: [\(csv\)](#)

Show Total

Picture	Violation #	Owner Name	Plate #	Time Violation Occurred	Last Payment Before Violation	Device ID	Reason	Processing Status	Status
<i>June 18, 2022</i>									
	59		Florida 	2022-06-18 6:21:15 pm EDT	N/A	SV003	No Parking Entered	To Verify 	New

SEARCH

Violation # Plate

59

SEARCHING ALL DATES

VIOLATION STATUS

ALL

VIOLATION NOTIFICATIONS

ANY

PROCESSING STATUS

ALL

SORT BY

ISSUED TIMESTAM

Metered Parking Session To Verify



License Plate



Province/State

Florida

[Details](#)

[Parking Fee Payments](#)

[Owner](#)

[Owner Lookup Attempts](#)

[Vehicle Details](#)

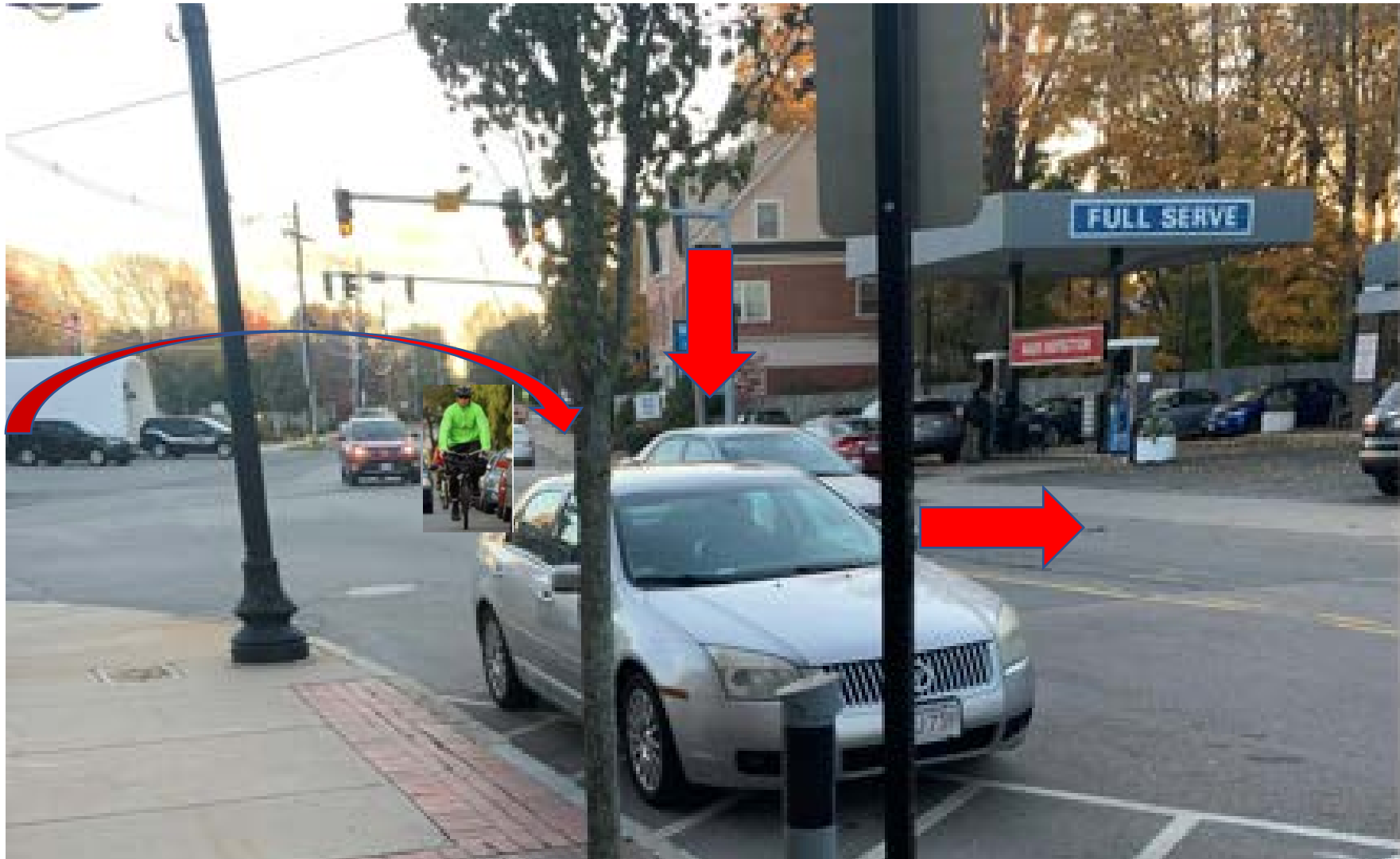
[LPR](#)

[Push Notification Files](#)

[Previous Session](#)

Session Details

Meter	SV003	Paid No-Fine Fee	No
Address	133 Holland St, Somerville, MA 02144	Initial Time Purchase	NO PURCHASE
Time Parked	2022-06-18 6:21:15 pm EDT	Time Purchased Before Violation	N/A
Initial Time Expired	NO PURCHASE	Session_ID	f161a90cef5011ec9720a1db9713
Time Exited	2022-06-18 6:27:16 pm EDT	SentryLink ID	66848838
Duration (HH:MM:SS)	00:06:01		



What could go wrong?

VISION ZERO NETWORK

Traffic crashes kill 40,000 people and injure 3 million every year in the U.S. Crashes include pedestrians 6516 ⁽¹⁾ in cross walks, accessing public transportation and in bike paths. ⁽²⁾



1. <https://www-fars.nhtsa.dot.gov/states/statespedestrians.aspx>
2. Vision Zero Network <https://visionzeronetwork.org/>