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경량형 디지털트윈 트윈투게더

Lightweight Type Digital Twin twintogether

- How much can you spend?
- mount | calibrate | upload | pick
- picker | saver | marketplace
- Again : How much can you spend?
- plan 2023year



Why we need a digital twin in public sector?

make mirror world



find link as geo info



connect with administrative information



Accurate and fast decisions | Enhanced Safety | 4IR...

How much could you spend to get a digital twin at every change?

GoPro Fusion + Car Mount



GoPro Fusion + Back Pack Mount



\$600

\$95

GoPro Fusion + Car Mount

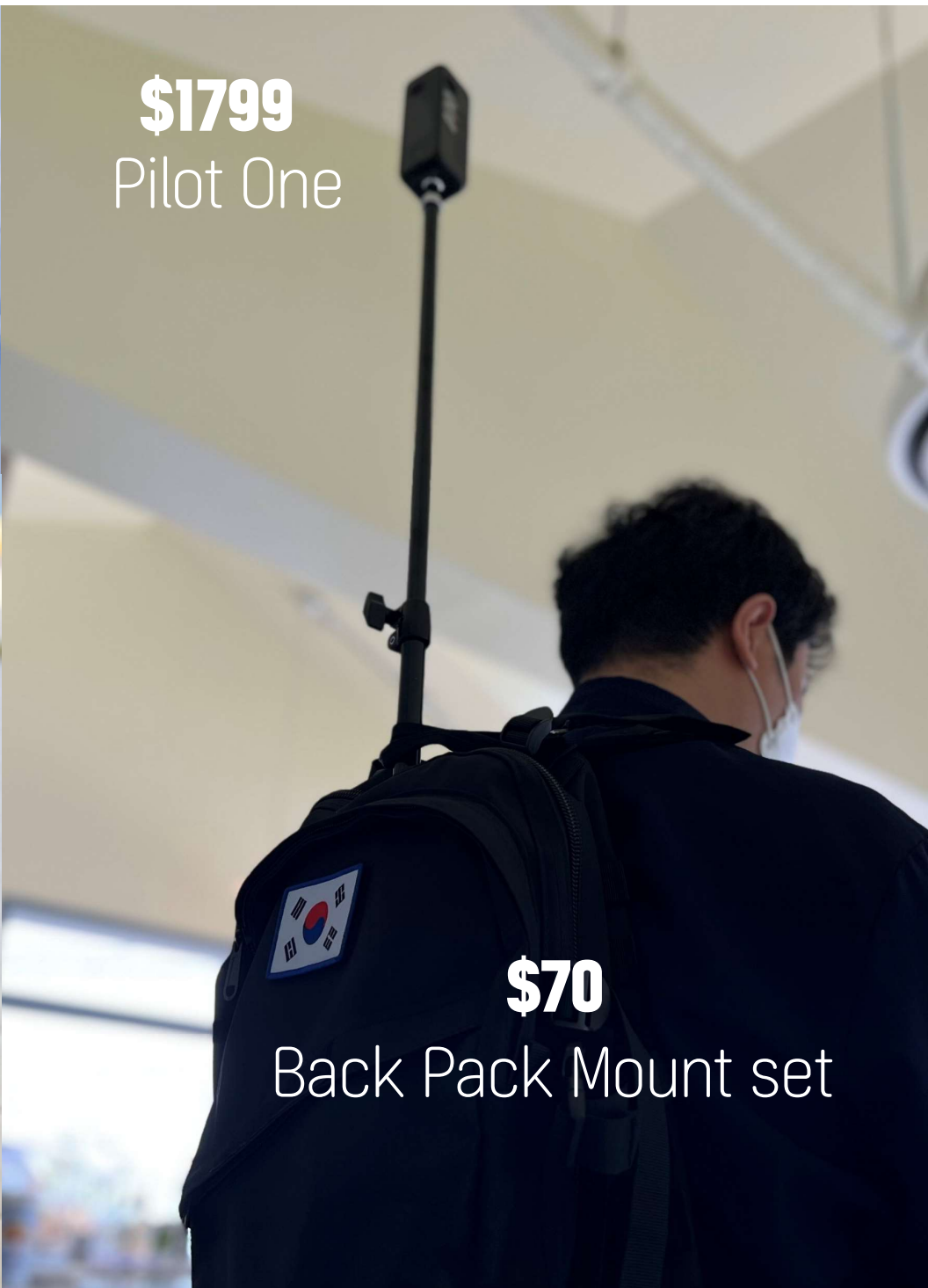
Magnetic
Elbow ←



\$1799
Pilot One

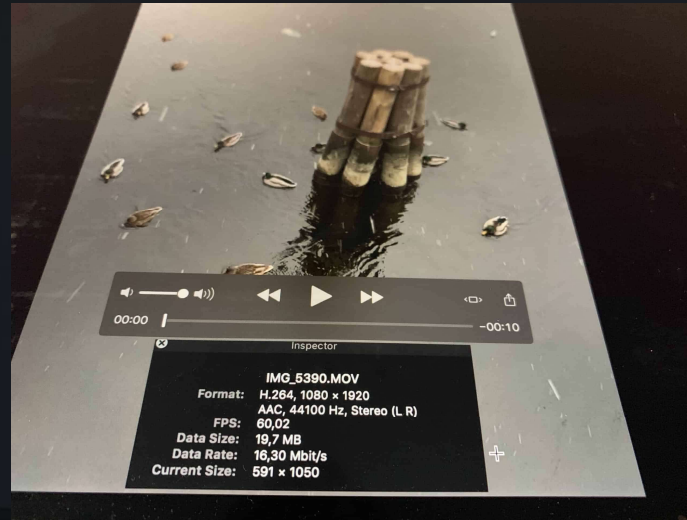
\$70

Back Pack Mount set



Why did I suddenly bring up the old technology?

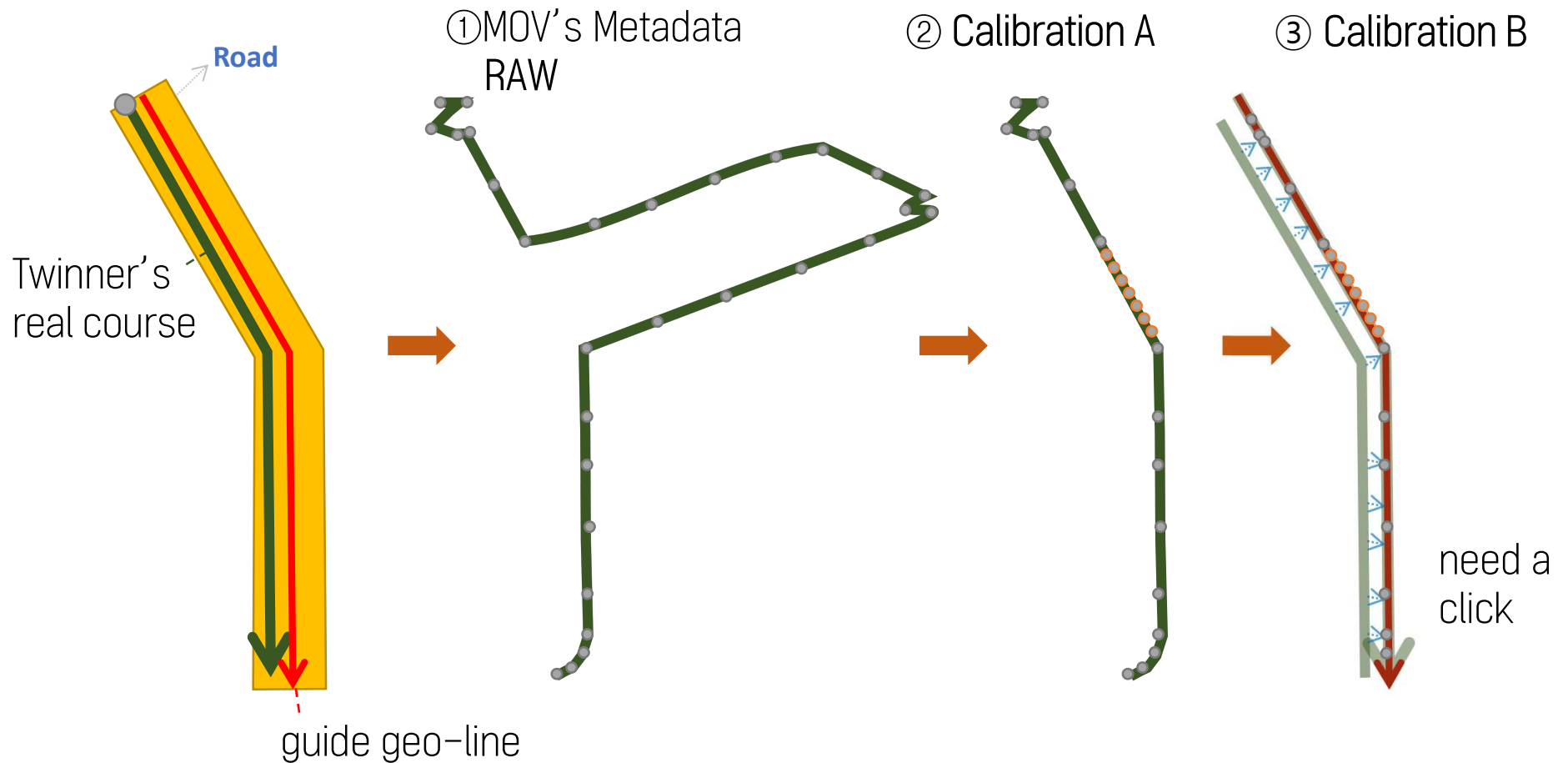
MOV

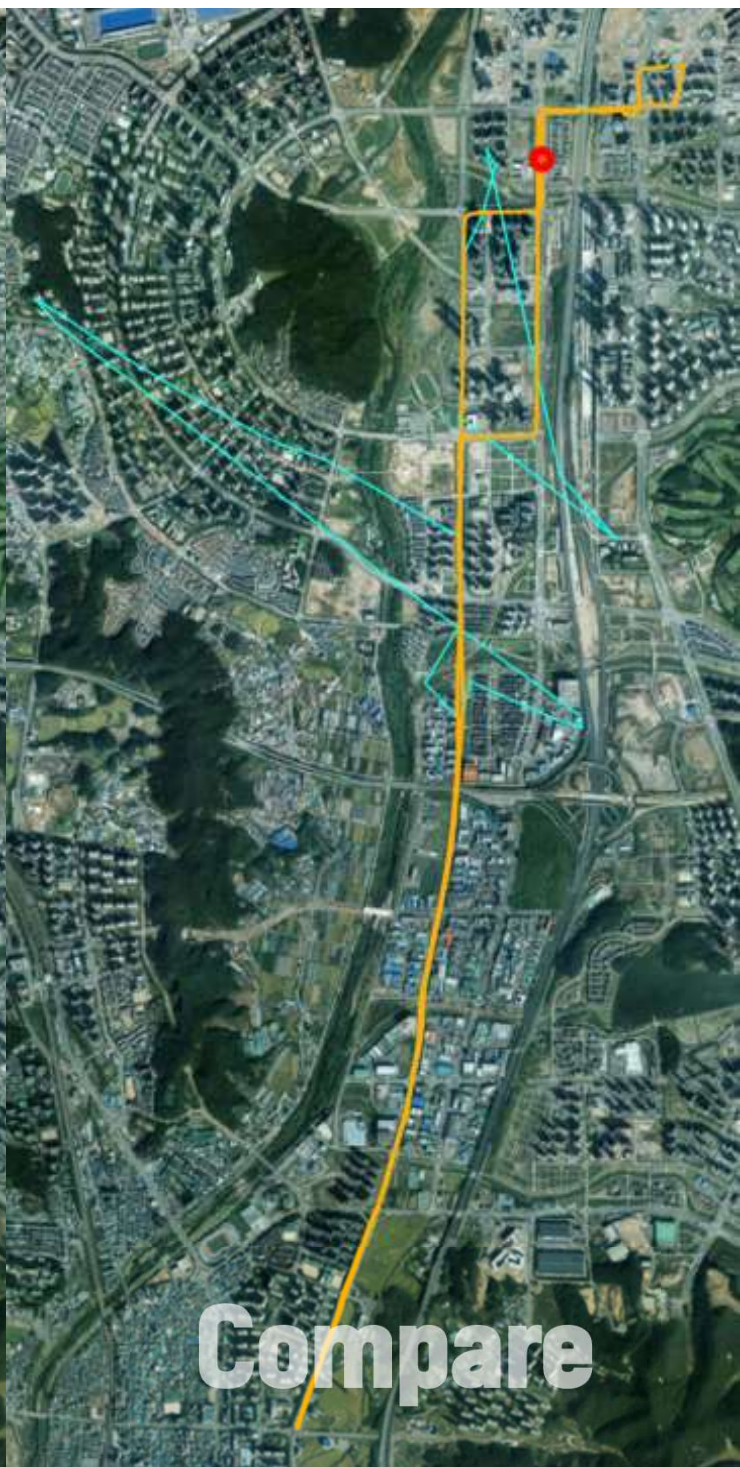
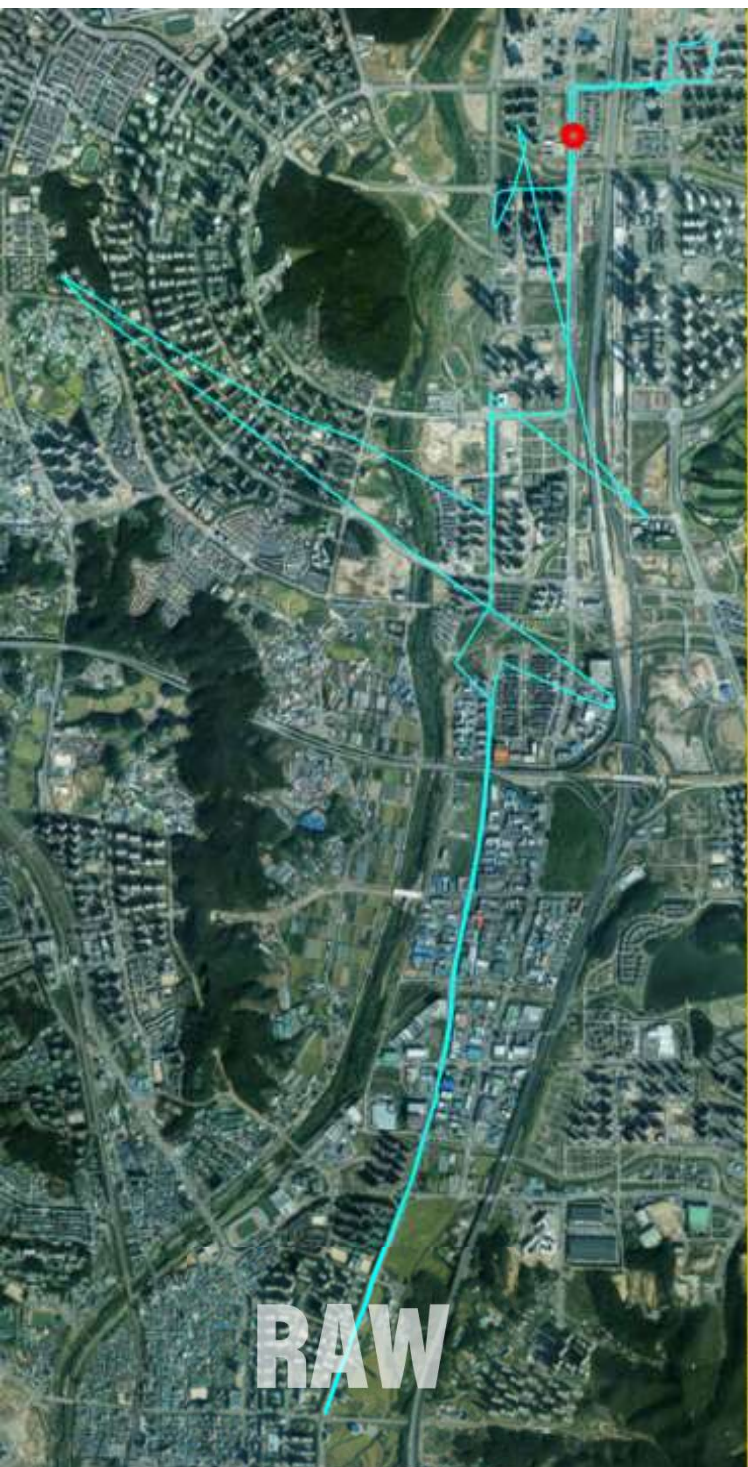


have a metadata

more than
we normally think

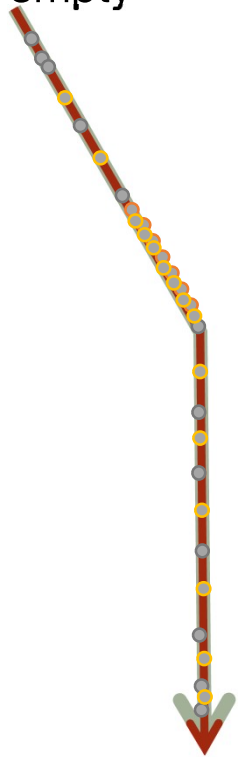
Twintogether executes **course calibration** via server app before uploading a **.mov** file



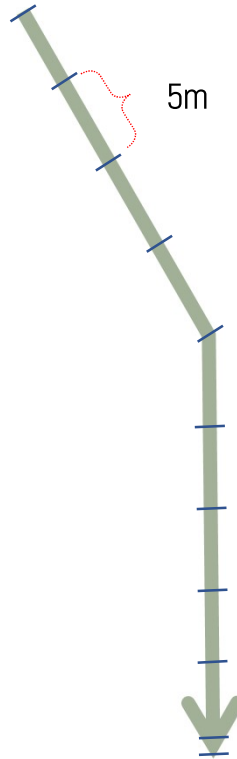


Twintogether executes a frame selection via server app before uploading a .mov file

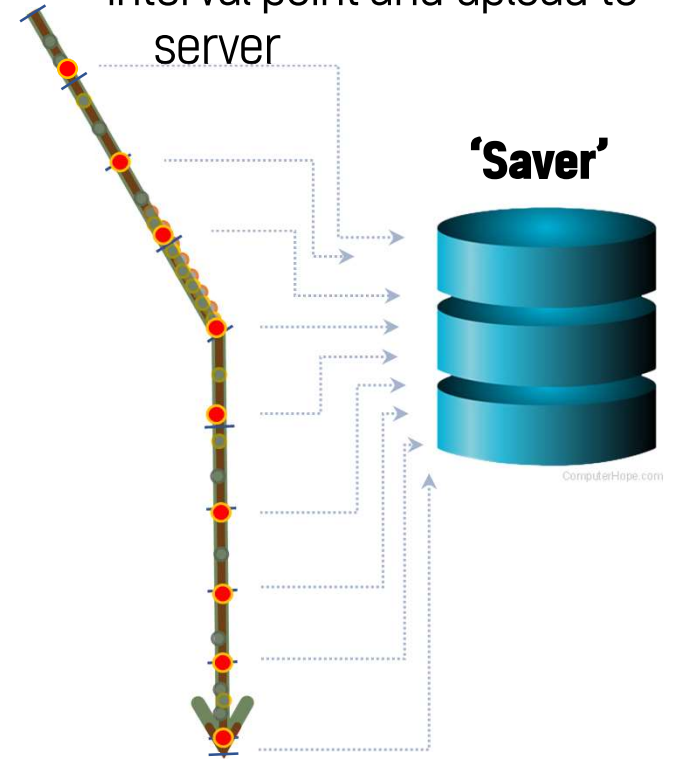
④ fill more metadata if empty



⑤ create interval 5m



⑥ select nearest frame from interval point and upload to server



Which frames would be upload to server?



Which frames would be upload to server?



**Upload to
twintogether server**

Twintogether bring exactly what we need to the server



11.8GB mov
time-labs file's size

if normal **30fps**,
size it would be more than **150GB**

size reduce to
1/10

**after calculation
&
frame selection**



1.1GB upload to
use twintogether

Why twintogether do this?

Specification & Price | 제한 및 예약가격표

Specification Price

중거 (mm)	길이		방식	엔진성능			공차중량 (kg)	연비 (km/L)	연료탱크 (L)
	전 (mm)	후 (mm)		배기량 (cc)	최고출력 (kW/PS)	최대토크 (kg-m/ps)			
2,375	1,410	1,417	1.0DOHC	995	70/6,400	9.4/4,800	910 (AT) 895 (MT)	17.0 (AT) 21.0 (MT)	35

에너지소비효율등급
VEM



remember this height



좌표 속성 삭제



Why twintogether do this?

The image is a composite illustrating a data inconsistency in a mapping application. It features three main components:

- Satellite Map (Left):** Shows a residential area with a red dot and a white arrow pointing to a specific location. Below the map is a table with columns: 순번 (Serial Number), 좌표 (Coordinates), 속성 (Attributes), and 삭제 (Delete).
- Data Table (Bottom Left):** A table with one row of data. The coordinates are [158419.88967558366, 443726.6954416247]. The attributes column contains a JSON object for "속성" (Attributes).
- 3D Street View (Right):** Shows a street scene with a white car. A red crosshair is positioned over the car. A data popup is visible, showing a JSON object for "속성" (Attributes) with a "height" property.

Table Data:

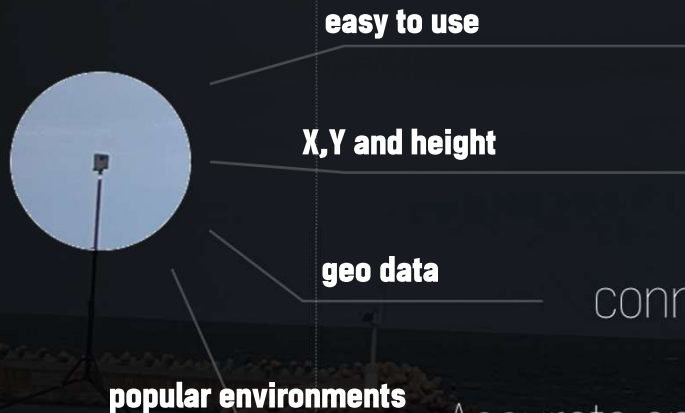
순번	좌표	속성	삭제
1	[158419.88967558366, 443726.6954416247]	<pre>{ "속성": { "e4326": { "x": 126.52982327059149, "y": 37.49205970763499 } } }</pre>	<input type="button" value="속성보기"/> <input type="button" value="삭제"/>

Data Popup (Right):

```
{
  "순번": 1,
  "좌표": [
    158419.88967558366,
    443726.6954416247
  ],
  "속성": {
    "e4326": {
      "x": 126.52982327059149,
      "y": 37.49205970763499
    },
    "e5181": {
      "x": 158419.88967558366,
      "y": 443726.6954416247
    }
  },
  "type": "Point",
  "pan": "97.8274693",
  "tilt": "9.0601077",
  "facType": "Check Height",
  "height": 1.5274556597544076
}
```

So, let's go back to the beginning

Why we need a digital twin from public sector?



make mirror world



find link as geo info



connect with administrative information



Accurate and fast decisions | Enhanced Safety | 4IR...

How much can you spend to get a digital twin at every change?

180* \$
9 \$

MMS Scan fee per 1km
twintogether order 1km

* 건설표준품셈 정밀도로지도 구축 중 기준점측량 등을 제외한 순수 MMS 촬영비를 \$ 환산

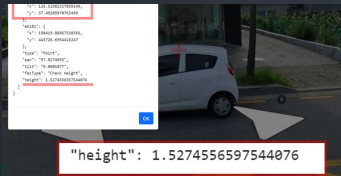
Web Solution and Subscription Fee



Saver

Calibrating and uploading to the app
to make a "Ready to use Picker"

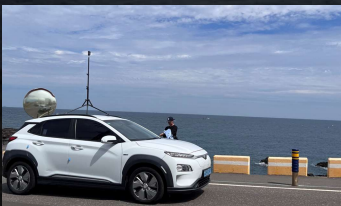
from
19\$ each 100km
per Month
ex : road



Picker

Survey coord, length, annotation for AI
Download or deliver geo result

from
29\$ each user
per Month



Market place

Create course and order to twinner
Assign picker-user to survey

Free transaction
fee

* 해외 이용자의 경우 해외 CDN 망 이용 등을 고려해 국내이용료와는 약간 차이가 있으며, 변경될 수 있습니다

Plan

Today

Apr 2023

Aug 2023

Nov 2023

Jan 2024

consulting

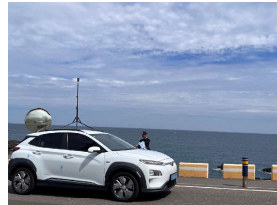
Beta

Official

Twinner's app

**daily twin
(store)**

Free user
recruitment



+



Administrative
business
connection

**GSV Publish
API connect**

**Internal
network
version
(ex:army)**

Apr 2023
beta **coming soon**

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