

วิธีติดตั้งระบบ Pallet Detector

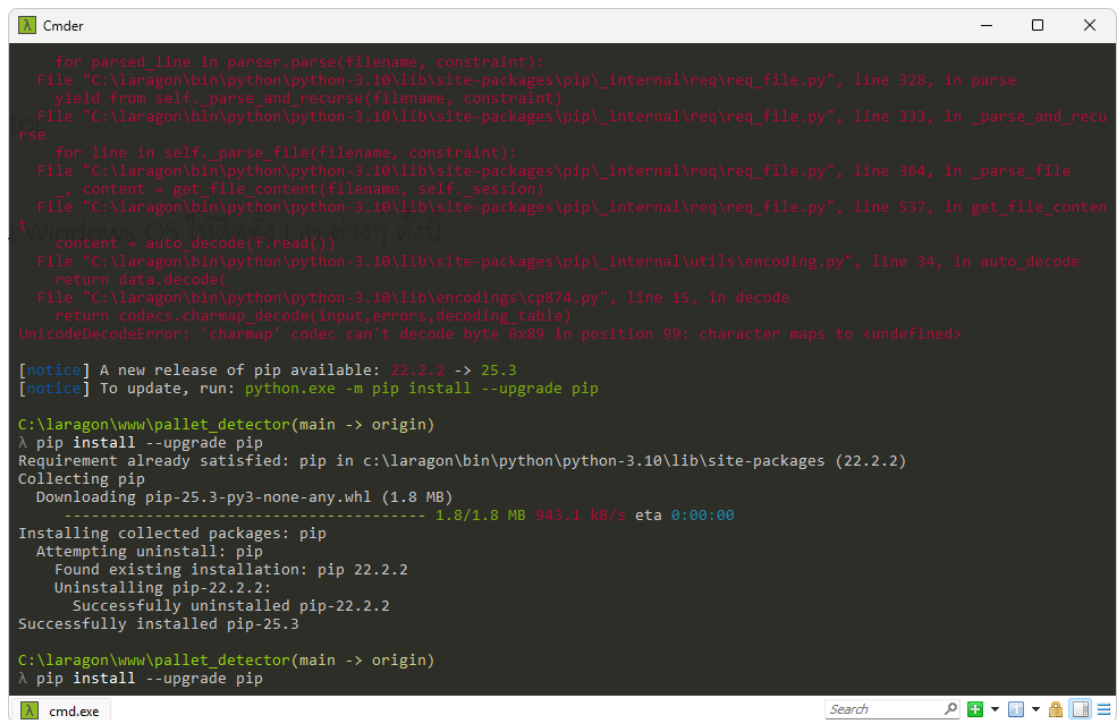
ในที่นี้ใช้

- Windows 11 OS
- Laragon 6.0 ในการรัน Visual server

กรณีต้องการทดสอบระบบบน Windows OS ให้ติดตั้ง Lib ต่างๆ ดังนี้

1. อัปเดต pip ให้เป็น version ล่าสุด ด้วยคำสั่ง

`pip install --upgrade pip`



```
for parsed_line in parser.parse(filename, constraint):
File "C:\laragon\bin\python\python-3.10\lib\site-packages\pip\_internal\req\req_file.py", line 328, in parse
yield from self._parse_and_recurse(filename, constraint)
File "C:\laragon\bin\python\python-3.10\lib\site-packages\pip\_internal\req\req_file.py", line 333, in _parse_and_recu
rse
for line in self._parse_file(filename, constraint):
File "C:\laragon\bin\python\python-3.10\lib\site-packages\pip\_internal\req\req_file.py", line 364, in _parse_file
, content = get_file_content(filename, self._session)
File "C:\laragon\bin\python\python-3.10\lib\site-packages\pip\_internal\req\req_file.py", line 537, in get_file_conten
t
content = auto_decode(f.read())
File "C:\laragon\bin\python\python-3.10\lib\site-packages\pip\_internal\utils\encoding.py", line 34, in auto_decode
return data.decode(
File "C:\laragon\bin\python\python-3.10\lib\encodings\cp874.py", line 15, in decode
return codecs.charmap_decode(input,errors,decoding_table)
UnicodeDecodeError: 'charmap' codec can't decode byte 0x89 in position 99: character maps to <undefined>

[notice] A new release of pip available: 22.2.2 -> 25.3
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\laragon\www\pallet_detector(main -> origin)
λ pip install --upgrade pip
Requirement already satisfied: pip in c:\laragon\bin\python\python-3.10\lib\site-packages (22.2.2)
Collecting pip
  Downloading pip-25.3-py3-none-any.whl (1.8 MB)
----- 1.8/1.8 MB 943.1 kB/s eta 0:00:00
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 22.2.2
    Uninstalling pip-22.2.2:
      Successfully uninstalled pip-22.2.2
  Successfully installed pip-25.3

C:\laragon\www\pallet_detector(main -> origin)
λ pip install --upgrade pip
```

2. ติดตั้ง Lib และส่วนที่เกี่ยวข้อง ด้วยคำสั่ง

- `pip install -r requirements/requirements.txt`

จากนั้นรอสักครู่ระบบจะติดตั้ง Lib ต่างๆ ให้รอจนหน้าจอกลับมาที่ Prompt

****ระบบอาจจะฟ้อง ERROR: Failed building wheel for RPi.GPIO ไม่ต้องสนใจเนื่องจาก เป็นการติดตั้งบน Windows ซึ่งไม่มี GPIO อยู่แล้ว**

3.กรณีติดตั้ง Lib ไม่ผ่าน ให้พิมพ์คำสั่งติดตั้งเอง

- pip install Flask==3.0.0 Flask-CORS==4.0.0 PyMySQL==1.1.0 opencv-python==4.8.1.78 gpiozero==2.0.1 requests==2.31.0

หรือ # ติดตั้งทั้งหมด (รวม GPIO libraries)

pip install Flask Flask-CORS PyMySQL opencv-python requests gpiozero RPi.GPIO

```
C:\laragon\www\pallet_detector(main -> origin)
λ Flask --version
Python 3.10.6
Flask 3.1.2
Werkzeug 3.1.4
```

หลังติดตั้งเสร็จทดสอบเรียกดู Flask -version หากแสดงผลตามรูปด้านบนแสดงว่าติดตั้งเรียบร้อยแล้ว จากนั้นพิมพ์คำสั่ง

- python app.py

```
Cmder
C:\laragon\www\pallet_detector(main -> origin)
λ python app.py
⚠ Not running on Raspberry Pi - GPIO disabled
▣ Starting Pallet Detection Backend...
  * Serving Flask app 'app'
  * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
  * Running on all addresses (0.0.0.0)
  * Running on http://127.0.0.1:5000
  * Running on http://172.16.58.186:5000
Press CTRL+C to quit
  * Restarting with stat
⚠ Not running on Raspberry Pi - GPIO disabled
▣ Starting Pallet Detection Backend...
  * Debugger is active!
  * Debugger PIN: 316-361-964
```

ระบบจะรันเซิร์ฟเวอร์ Flask ถ้าติดตั้งสมบูรณ์จะแสดงผลตามรูปด้านบน

หมายเหตุ:

- gpiozero สำหรับ GPIO (Pi only)
- opencv-python สำหรับกล้อง
- PyMySQL สำหรับ MySQL

จากนั้นทดสอบเปิดหน้า <http://localhost:5000/api/config> หรือใช้คำสั่ง CURL จะได้ผลลัพธ์ตามรูปด้านล่าง

```
localhost:5000/api/config

{
  "camera": {
    "resolution": {
      "height": 720,
      "width": 1280
    },
    "selectedCamera": "0"
  },
  "detection": {
    "alertThreshold": 15,
    "captureInterval": 600,
    "confidenceThreshold": 0.77,
    "deviceMode": "cpu",
    "imageSize": 1280,
    "iouThreshold": 0.6,
    "modelPath": "runs/detect/pallet_v35/weights/best.pt",
    "operatingHours": {
      "end": "18:00",
      "start": "08:00"
    }
  },
  "general": {
    "device": "Raspberry Pi 5",
    "imagePath": "C:\\aragon\\www\\pallet_detector\\upload_image",
    "lastUpdate": "2025-12-28",
    "siteCompany": "PACJ",
    "siteLocation": "Building 1",
    "version": "1.0"
  },
  "gpio": {
    "greenLightPin": 27,
    "redLightPin": 17
  },
  "network": {
    "database": {
      "database": "db_linotify",
      "host": "localhost",
      "password": "1234",
      "port": 3306,
      "user": "root"
    },
    "lineNotify": {
      "groupId": "C4f1e1001f01b9360ce85b55a2c5c39e6",
      "token": "bPnF3x6JmcXeS3RPdE2/39U8FA1nFeh4COKIU8p+z5NRAtWOxAdeYFUTWDGTUWvG4rdS0QIjdypF7If7aLuML+tLIi0YMzHU2+HQPu951LnsGWHo1kaSPle4Uv1QH3sEOjs4eyioGFWNokqNUb0VAdB04t89/1O/w1cDnyllFU="
    },
    "wifi": {
      "password": "",
      "ssid": "",
      "username": ""
    }
  },
  "system": {
    "autoCleanupDays": 7,
    "storageUsedMB": 0,
    "totalFiles": 0
  }
}
```

POST http://localhost:5000/api/test/database

Send

Docs Params Authorization Headers (9) Body Scripts Settings

Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON

Schema Beautify

```
1 {
2   "host": "localhost",
3   "user": "root",
4   "password": "1234",
5   "database": "db_pact_api",
6   "port": 3306
7 }
8
9
```

Body Cookies Headers (6) Test Results

200 OK 7 ms 376 B Save Response

{ } JSON

Preview Visualize

Search Copy Link

```
1 {
2   "details": {
3     "database": "db_pact_api",
4     "host": "localhost",
5     "version": "8.0.30"
6   },
7   "message": "Database connection successful! ",
8   "success": true
9 }
```

GET http://localhost:5000/api/system/storage

Send

Docs Params Authorization Headers (9) Body Scripts Settings

Cookies

Query Params

	Key	Value	Description	Bulk Edit
	Key	Value	Description	

Body Cookies Headers (6) Test Results

200 OK 5 ms 391 B Save Response

{ } JSON

Preview Visualize

Search Copy Link

```
1 {
2   "data": {
3     "freeDiskGB": 24.23,
4     "path": "C:\\laragon\\www\\pallet_detector\\upload_image",
5     "totalDiskGB": 235.78,
6     "totalFiles": 0,
7     "usedMB": 0.0
8   },
9   "success": true
10 }
```