# KURASENSE-TM ROBOT

# QUICK START GUIDE

## 1. Package Contents

**The following items are included in the KURASENSE-TM Robot package:**

- **KURASENSE 3D Sensor**
  Captures 3D visual data to enable precise part recognition and positioning.
- **KURASENSE Controller**
  Acts as the central unit for managing sensor input and communication.
- **Power Adapter**
  Supplies power to the controller and connected devices.
- **Calibration Board**
  Used during initial setup to calibrate the 3D camera for optimal accuracy.

All components are securely packed in a cardboard box. Please inspect each item upon unpacking to ensure they are undamaged and complete. For further mounting details, refer to the official KURASENSE Manual.

**Components Inside Package**

## 2. Hardware Installation

### 2.1 Mounting KURASENSE on TM Robot

To install the KURASENSE system onto the TM Robot:

- **Design a Custom Mounting Plate**

  A custom plate should be fabricated to securely hold both the KURASENSE 3D camera and the controller. While the shape can be adjusted to suit your application, the mounting hole specifications must remain unchanged.

**a. KURASENSE-C100FX (Head Section)**

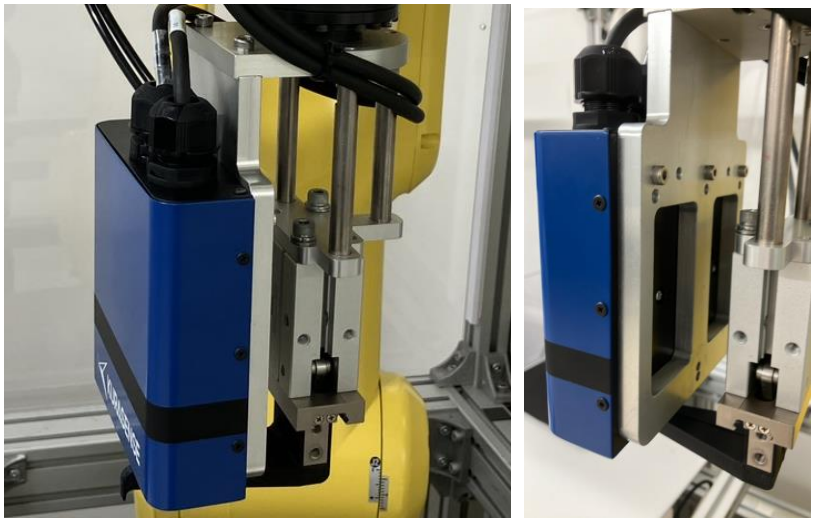
- Mounting specifications:
  - 4 × M4 threaded holes (depth: 8 mm)
  - 1 × φ4 H7 positioning hole

**b. KURASENSE-C100FX (Controller Section – 2024/5~ Model)**

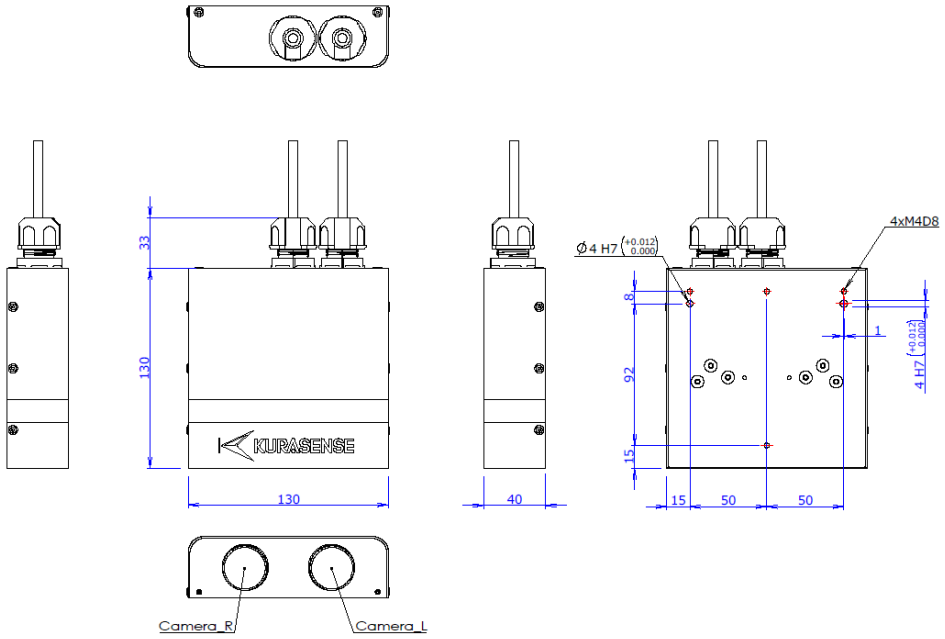
- Mounting specifications:
  - 6 × M4 threaded holes (depth: 10 mm)

Please refer to the official **KURASENSE Manual** for detailed mechanical drawings and mounting guidance.

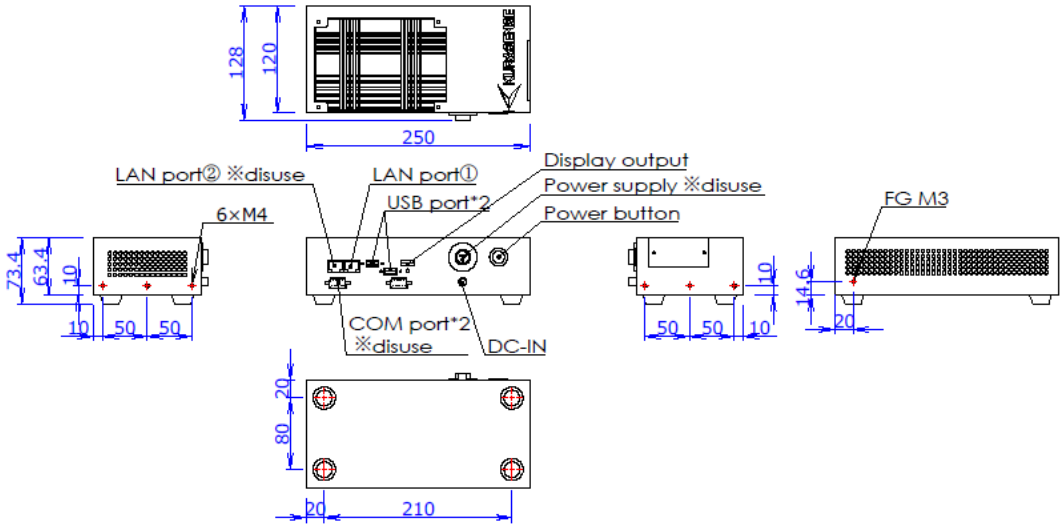
**Example of Custom Mounting Plate**



## Kurasense-C100FX model 「Head section」



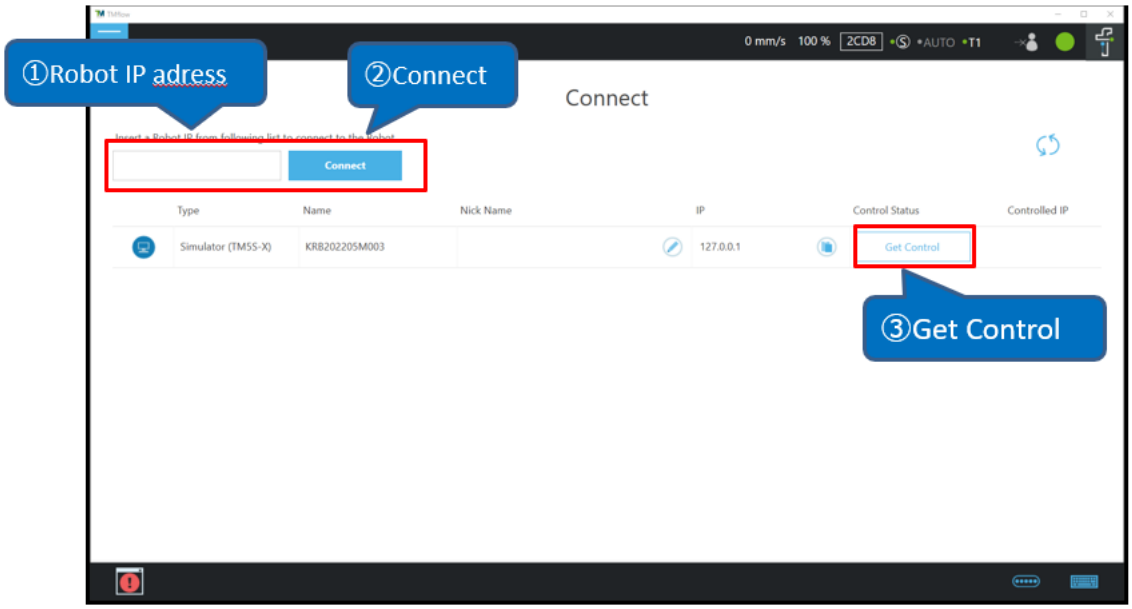

## Kurasense-C100FX 2nd model (2024/5~)「Controller section」



## 3. Software Setup

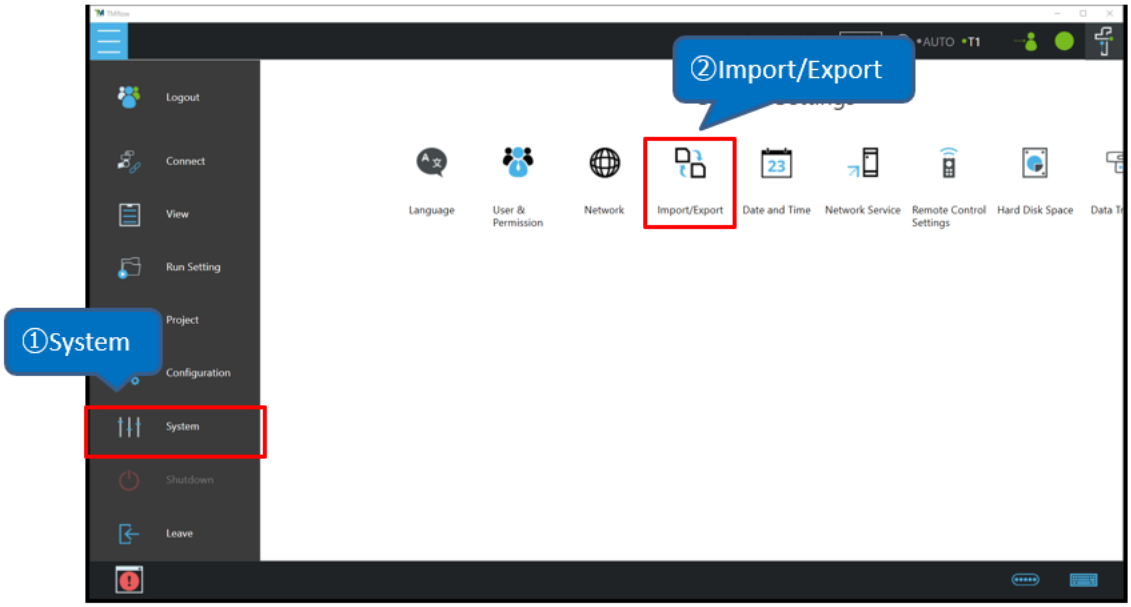
### 3.1 Launching TMflow

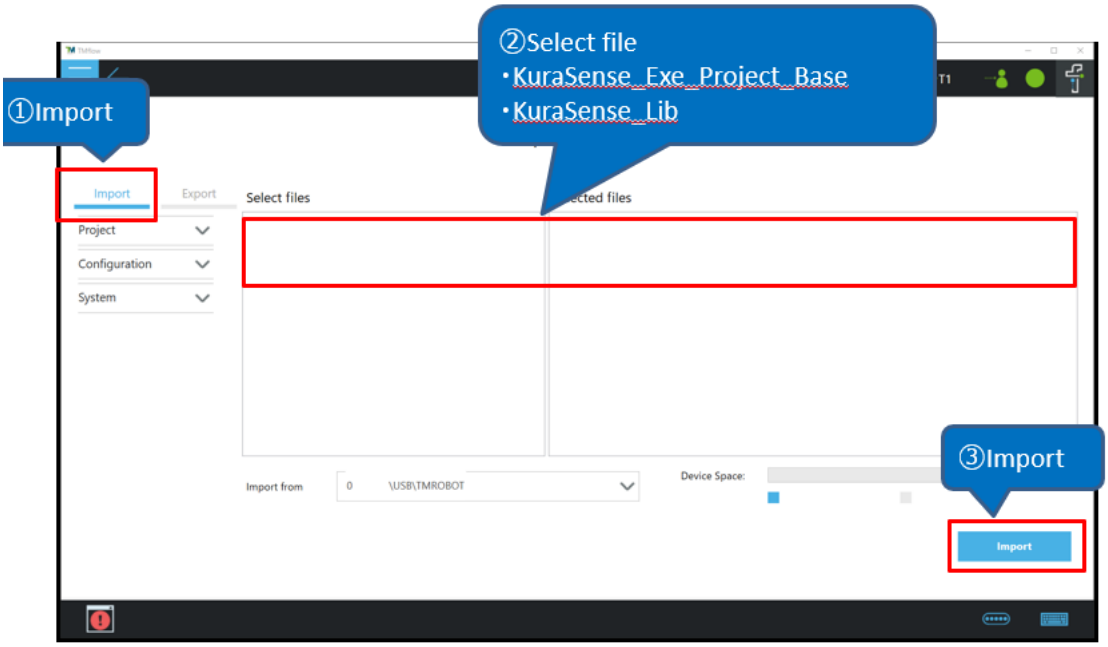
- Power on the TM Robot.
- Launch the **TMflow** software.
- Connect TMflow to the corresponding robot via the robot's network settings.




### 3.2 Importing the Project

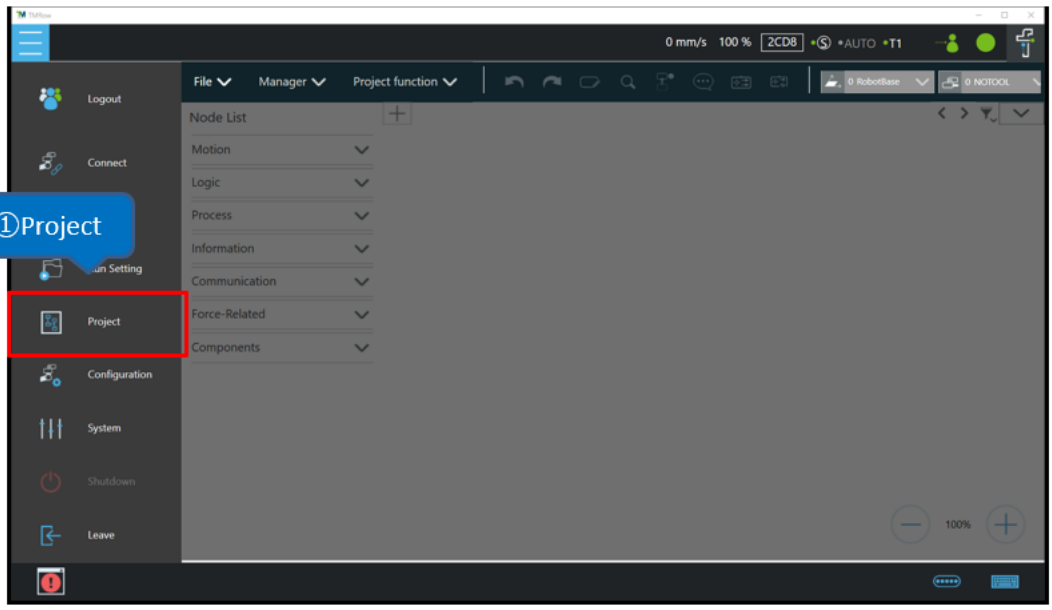
- In TMflow, go to **System → Import Project**.
- Locate and select the provided **KURASENSE TMflow project** file.
- Click **Import** to load the project into TMflow.

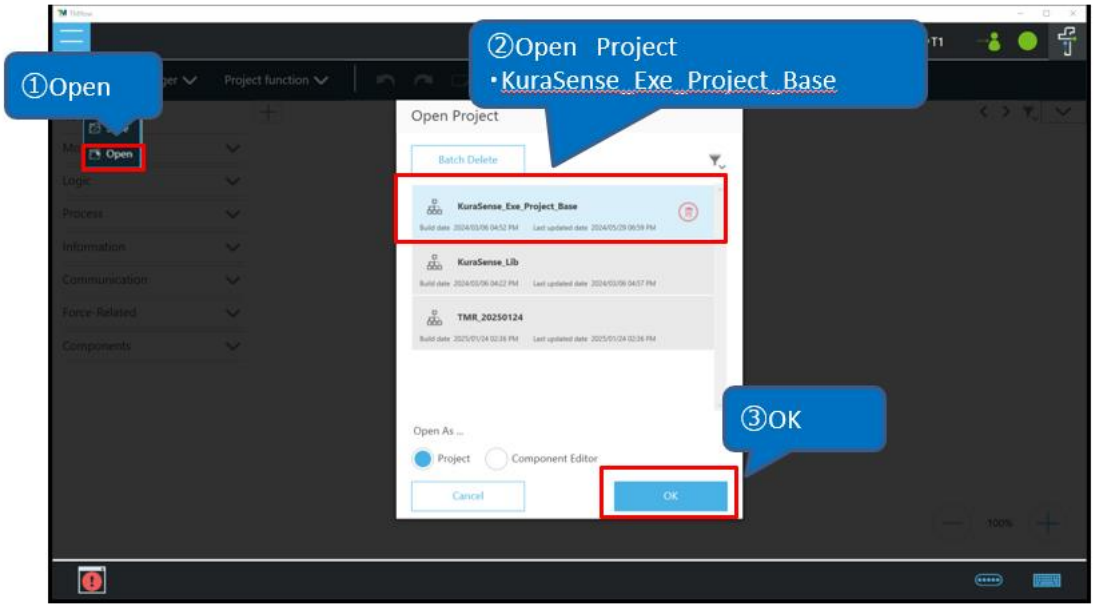


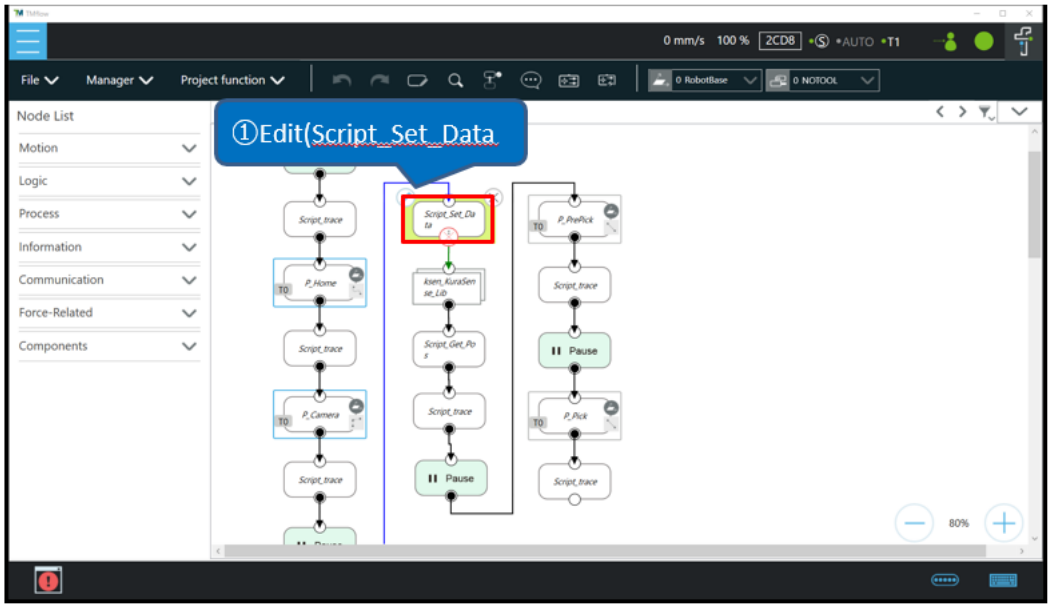



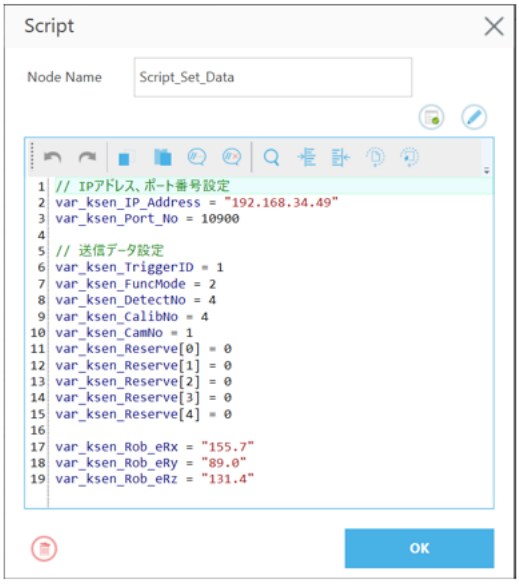

### 3.3 Configuring the Script

- Open the imported project within TMflow.
- Navigate to the Script_Set_Data section
- Edit the communication data within Script_Set_Data.


①Project
Logout
Connect
Project
Configuration
System
Shutdown
Leave
File
Manager
Project function
Node List
Motion
Logic
Process
Information
Communication
Force-Related
Components


①Open
②Open Project
・KuraSense_Exe_Project_Base
③OK
Open Project
Batch Delete
KuraSense_Exe_Project_Base
KuraSense_Lib
TMR_20250124
Open As ...
Project
Component Editor
Cancel
OK




| 名前<br>Name | 設定値<br>Value | 説明<br>Description |
|---|---|---|
| var_ksen_IP_Address | 192.168.XXX.XXX | クラセンスのIPアドレス<br>Kurasense IPaddress |
| var_ksen_Port_No | 10900<br>(Fixed) | クラセンスの通信ポート番号<br>Kurasense ConnectionPortNo |
| var_ksen_TriggerID | 1(Optional) | トリガID(任意) TriggerID(Optional) |
| var_ksen_FuncMode | 1~5 101,102 | 認識機能 FunctionMode |
| var_ksen_DetectNo | 1~10 | パラメータNo |
| var_ksen_CalibNo | 1~10 | キャリブレーションNo |
| var_ksen_CamNo | 1~10 | カメラNo |
| var_ksen_Reserve[0]~[4] | 1 | 予約 (全て1) Reserved (All 1) |
| var_ksen_Rob_eRx<br>var_ksen_Rob_eRy<br>var_ksen_Rob_eRz | Floating | 計測時のロボットの姿勢情報(Rx,Ry,RZ)<br>Robot Posture Information During Measurement(Rx,Ry,RZ) |

### 3.4 Running the Project

- Once configured, run the project directly from TMflow.
- Use the **test component** to verify data reception and task execution.
- Adjust logic or parameters based on the application as needed.