



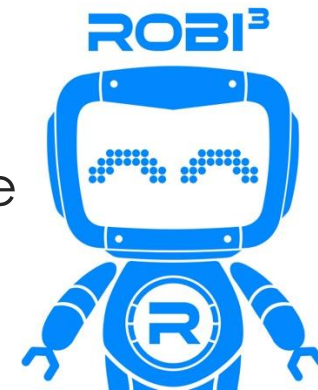
ROBI³ Robotics

Dancing Robotic Arms Proposed System Structure

For xxxx Limited

This version is modified for
JLNU EETC 3433 course for educational purpose

Confidential - intended recipient only



ROBI³

ROBI³ Robotics



Videos would be the best way to demonstrate our ability. Please visit <https://youtube.robi3.com> to have an idea of what we do

樂必易機械人技術

ROBI3 Robotics is an independent Research & Development company for tailor-made automation in the Greater China, having showcase in Hong Kong Science Park & Macao Science Center. Company products include ice-cream serving robot, egg-waffle serving robot, Ferris-wheel vending machine.

樂必易機械人技術(ROBI3 Robotics)為大中華區的一家獨立科研公司, 於香港科學園及澳門科學館均有展示. 產品包括大中華地區(中港澳台)唯一的人型雞蛋仔機械人、雪糕機械人、摩天輪售賣機等好玩吸睛產品.



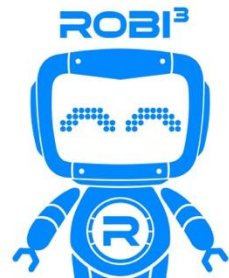
Proposal 01

Project Target

An interactive robotic arm decorated with the transformer theme, to be hang from the ceiling of the themed venue and perform interactivity with guests.

Constrain:

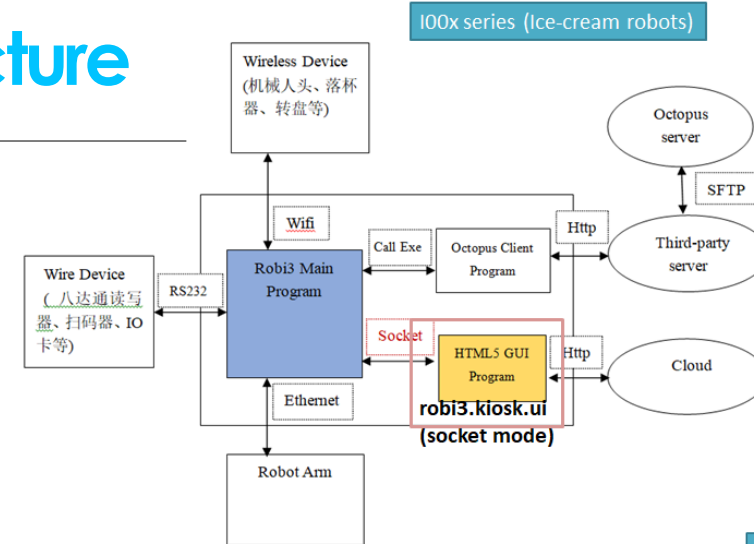
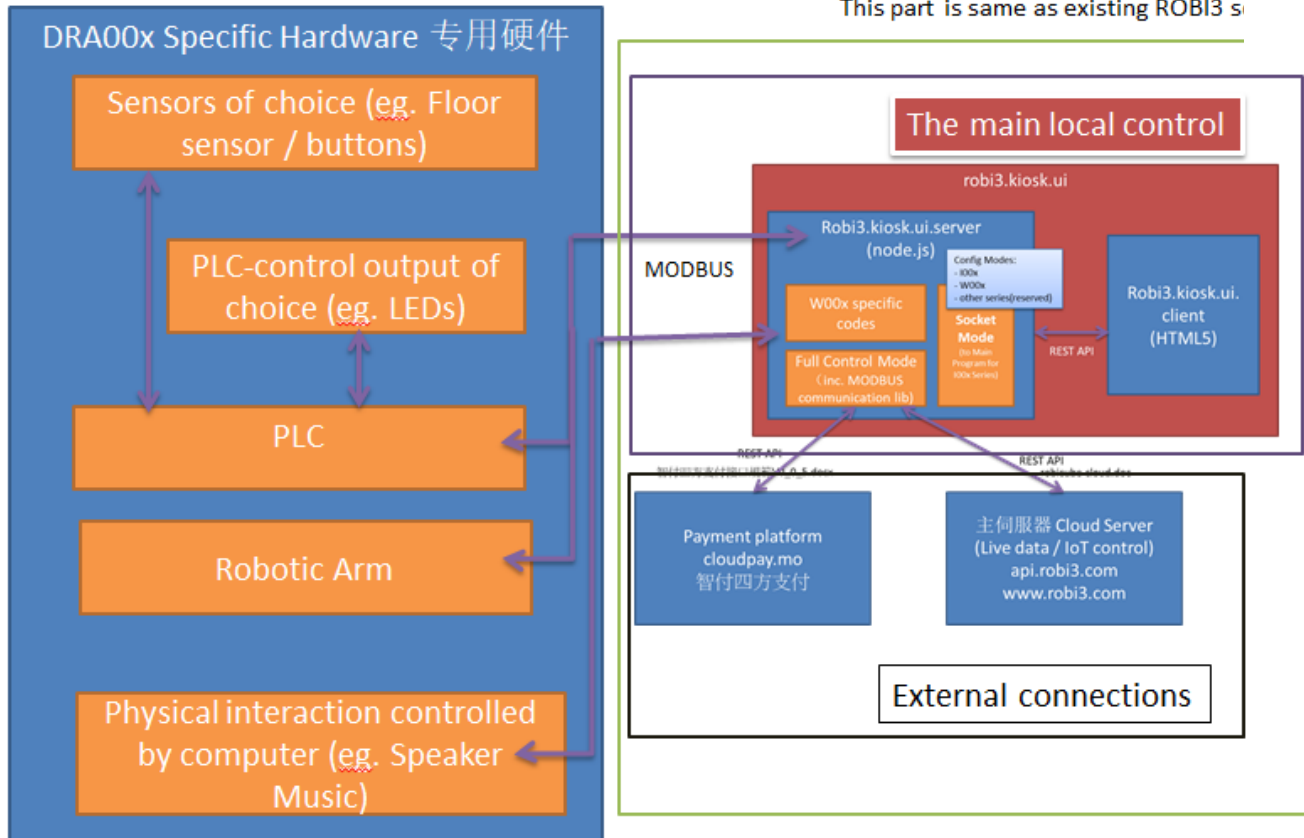
- Machines to be ready in April 2023.
- Lead time is about 3 months, so order need to be placed by Dec 2022.



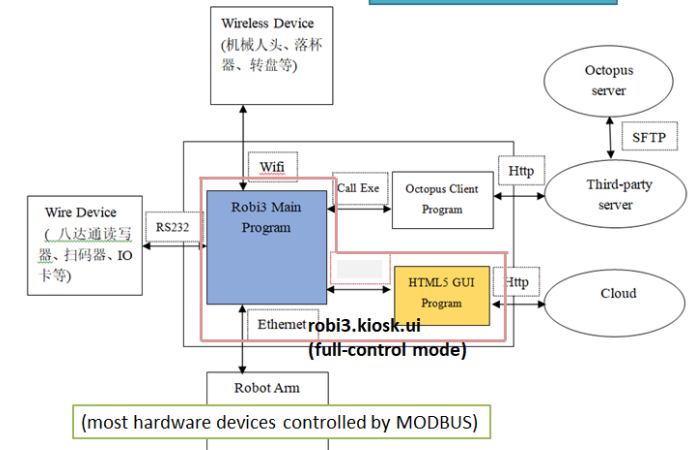
ROBI³ Proposed System Structure

- With references to our structure of the existing ice-cream serving machine & waffle-making machines, we would suggest the following:

DRA00x series (Dancing Robotic Arm series)



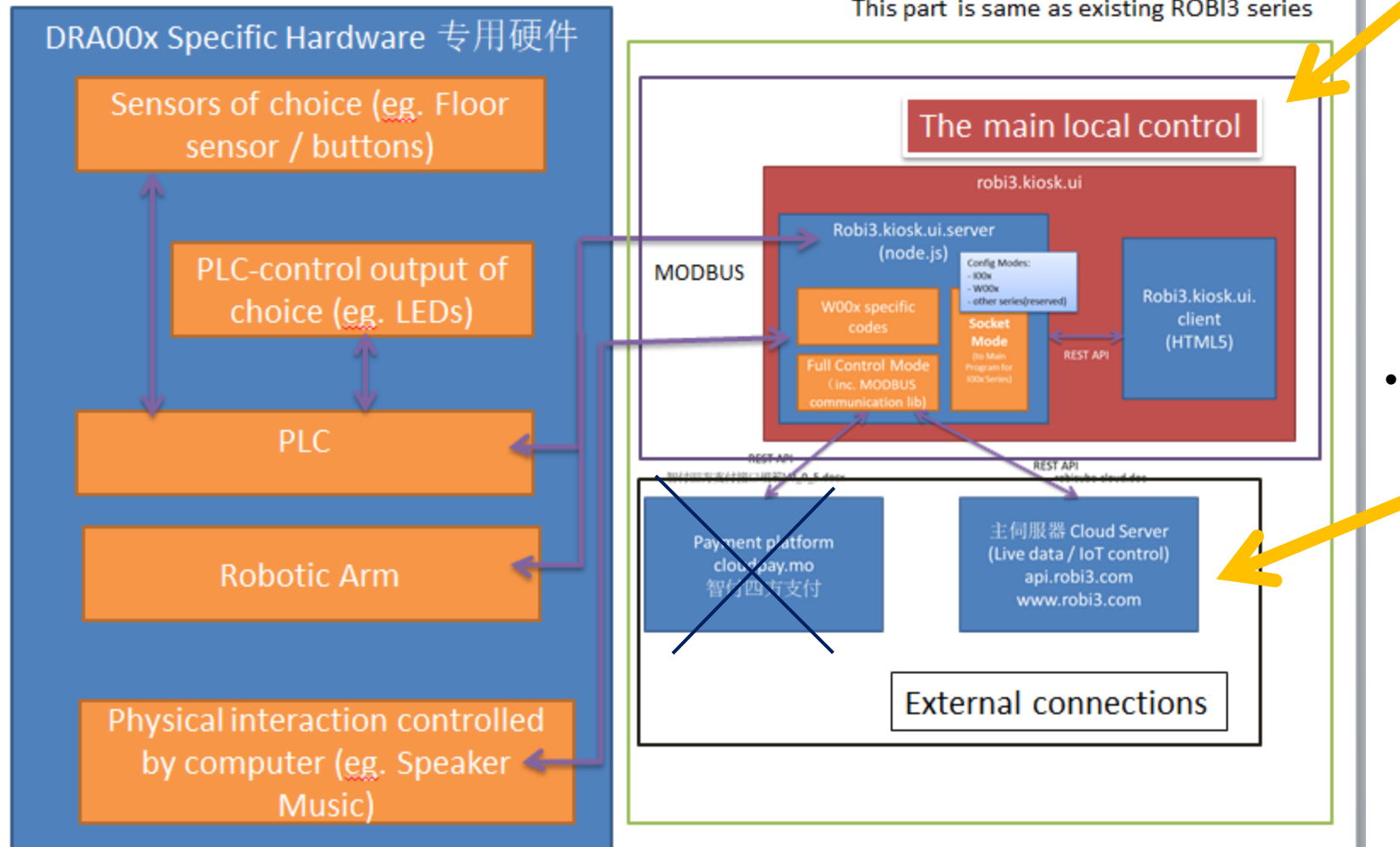
W00x series (Waffle robots)



- Figures above are for your references of previous works done.
- Please refer to next slides for details on proposed system structure.

ROBI³ Proposed System Structure – details (1)

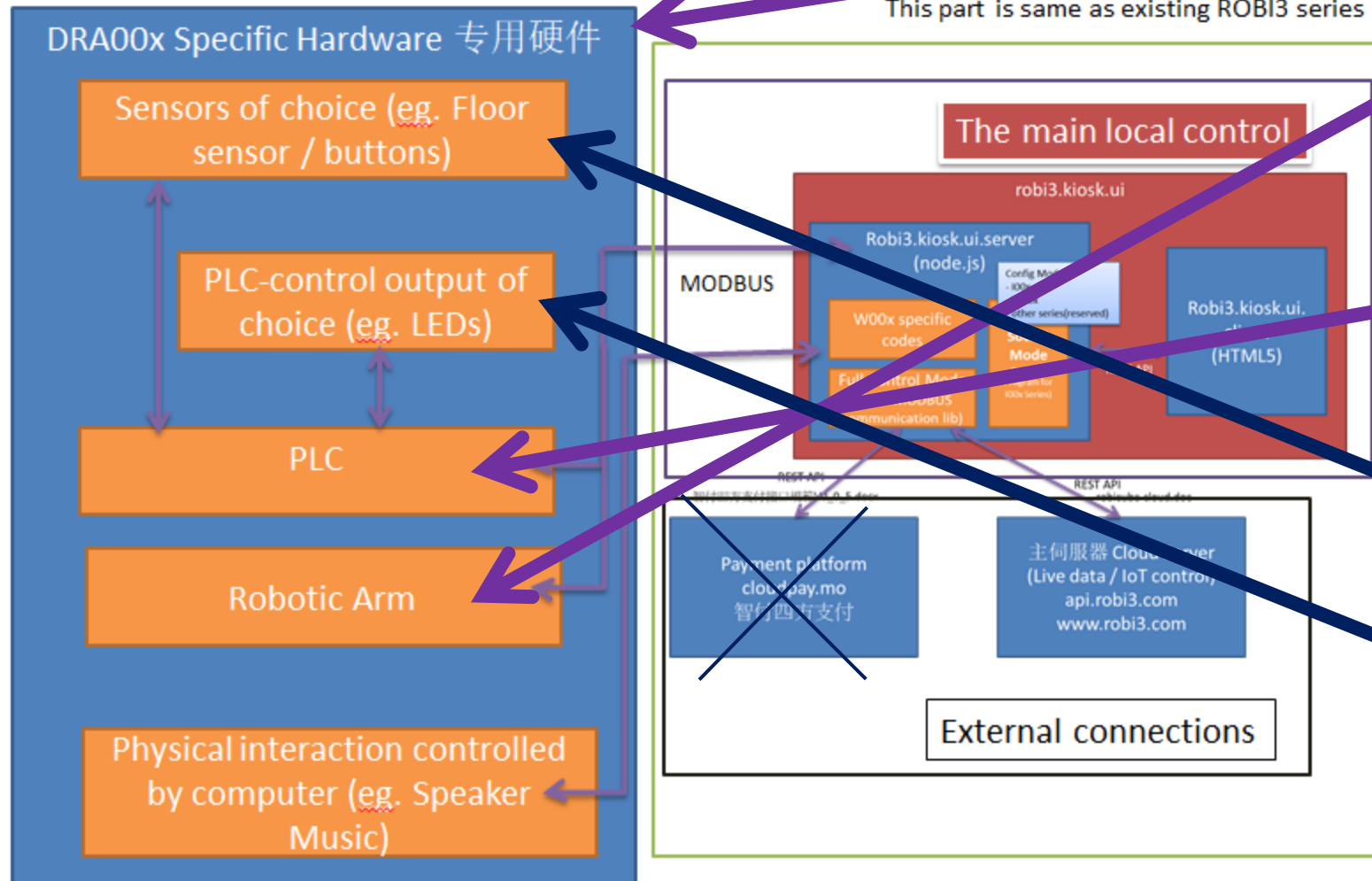
DRA00x series (Dancing Robotic Arm series)



- **Robi3.kiosk.ui – the main control**
a local computer with a touch-screen monitor
 - controls the robotic hardware (robotic arm + PLC) and link it between the external connection.
 - Could do payment (if needed)
 - touch-screen interaction
- **Cloud sever (External connection)**
(Can change to local connection / private server if needed)
 - Record interactions made
 - View statistics
 - View error logs online / remotely
 - Monitor machine live status

ROBI³ Proposed System Structure – details (2)

DRA00x series (Dancing Robotic Arm series)



Specific Hardware

meaning hardware for the dancing robot made to order

Robotic Arm

The heart of the project, action to be programmed on the robot itself. Connected to robi3.kiosk.ui via MODBUS

PLC

To control hardwares / sensors / output that cannot controlled by robi3.kiosk.ui CPU directly

Sensors (inputs)

any input by user, could be buttons / floor sensor / distance sensors

Output

any effect created not related to the robotic arm directly, eg. External LED, lightings, effect fans, other moving parts, etc.



Further discussion expected

As seen on the suggested system structure that the input, output as well as the outlook of the robot to be define, we would need to work together with the company designers to further understand the requirements.

We currently estimate the lead time to be around 3-4 months.

Company projects: <https://www.youtube.com/@robi3>



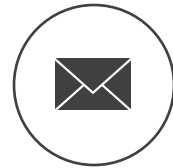


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