

STMicroelectronics (STM AMK Phase 3)

CMR15 Racks & Calling Method Proposal

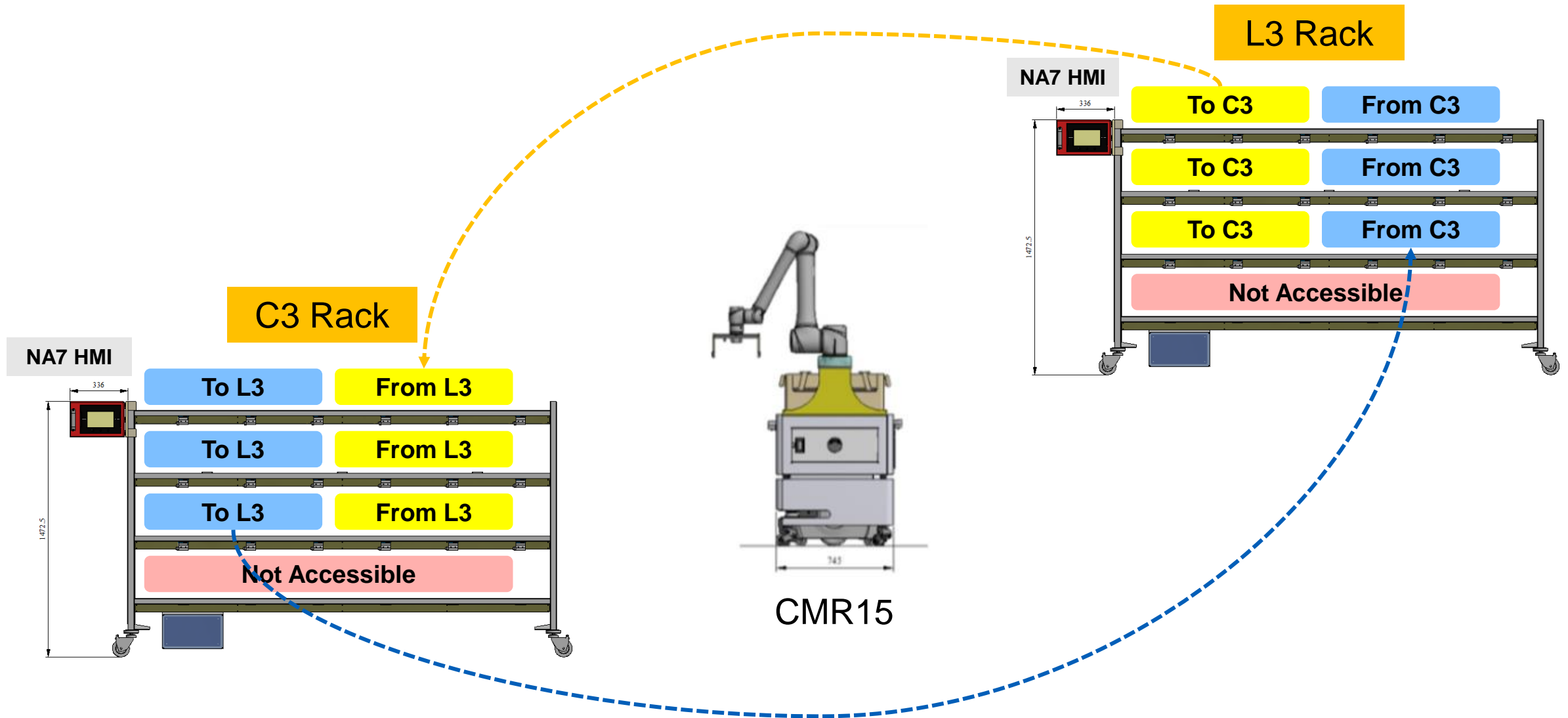
OMRON Electronics Pte Ltd (OEP-SM)

Marcus Chan
Application Engineer

marcus.chan@omron.com (+65 9837 4590)

Racks Design at L3 & C3 (with 7" HMI)

CMR15 SMIF handling at L3 & C3



Proposal agreed by ET Lim

27th Mar 2025

Final Agreed Proposal – with Call Button

Auto Mode

- CMR15 job ONLY created when **4 SMIF pod** detected. (assign immediately)
- CMR15 job ONLY created when **3 SMIF pod** detected + delay timer. (configurable)
- CMR15 job **will NOT** create automatically when only **1-2 SMIF pod** detected. (regardless delay timer)
- Operator will be able to **press “Call”** button from both rack’s HMI to create a single CMR15 job, ONLY when 1-2 SMIF Pod being detected on the racks.
- CMR15 will pick up maximum 4 SMIF pod and proceed to move to placing rack **regardless the no. of empty slots on placing rack.**
- Alarm & buzzer will be triggered when **no. of empty slots** on placing rack **doesn’t match to the no. of SMIF pod** CMR15 picked up. To alert operator to clear the racks asap.
- CMR15 will stop placing on the rack when it is full and giving alarm that same as CMR1-14 when rack is full.
- When any CMR15 job created, CMR15 will **move to the nearest pickup goal first** despite which side is calling for robot, for higher efficiency.

Final Agreed Proposal – with Call Button

Manual Mode

- CMR15 job **will NOT** create automatically and CMR15 will be parked/docked as usual.

Low Battery Mode

- CMR15 job **will NOT** create automatically and CMR15 will turn 180 deg and prompt low batt alarm.

Call Button Pros & Cons

Pros

- Operators have the control to call for CMR15.

Cons

- CMR job will never be created when only 1-2 SMIF pods detected on racks and operators forgot to call.
- New work instruction need to be given to operators as CMR15 work differently from other CMRs.
- Required to re-educate whenever new batch of operators came in.

Next Action of CMR15

- Omron team to show and review the sample **design of multi-pages** display on 7" HMI on 22/04/25
@Thin Thiri
- STM come back to Omron **if any extra event / information required from CMR15** to send to DTIT
- Otherwise all alarms will remained same as CMR1-CMR14. @ET Lim
- STM to check with DTIT and confirm the **IP address & Port Number** of the event logging.
@Chun Wee

The End