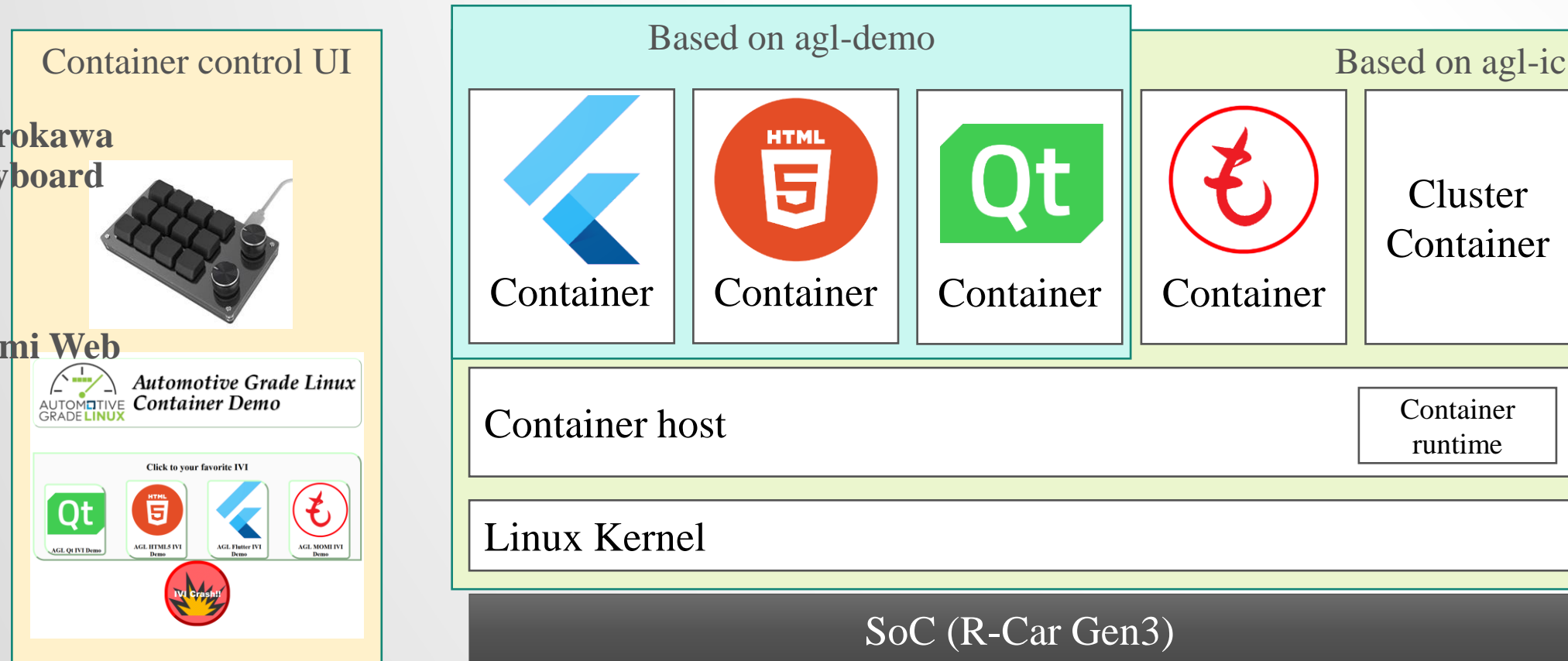




How to upstream ces2023 demo

Structure of CES 2023 demo

- The CES2023 demo realize to AGL integrated system using linux container, that is build by instrument cluster and four ivi demo.



Issue for the upstreaming

Issue2. How to build agl-demo based guest container.

Issue1. How to keep minimized common software stack.

Container control UI

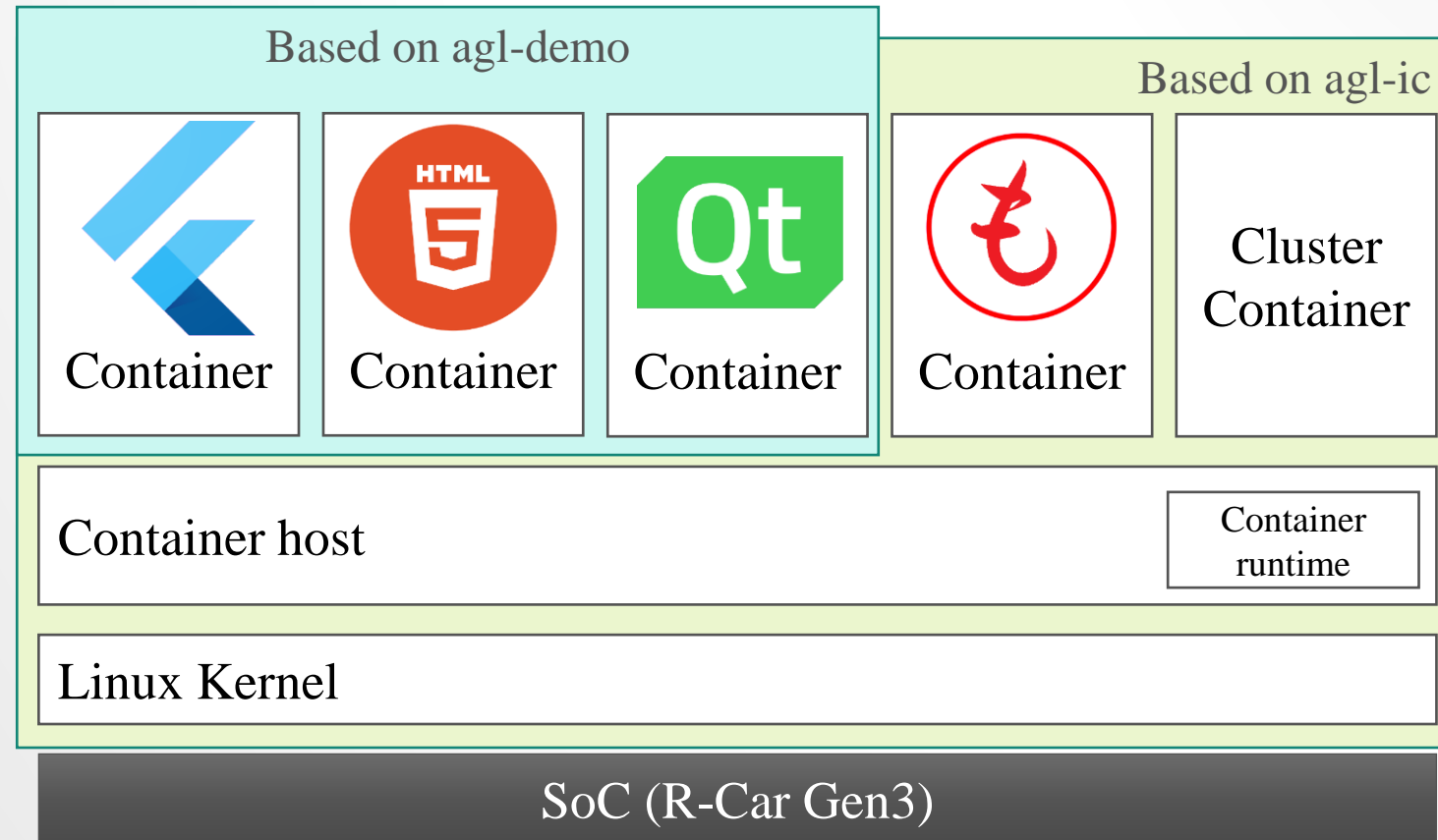
Kurokawa Keyboard



Momi Web



The image shows a screenshot of a web-based container control interface. At the top, it says 'Container control UI'. Below that, there's a section for 'Kurokawa Keyboard' with an image of a black keyboard. Underneath is 'Momi Web', which features the 'Automotive Grade Linux Container Demo' logo and a grid of buttons for different IVI demos: Qt, HTML5, Flutter, and Momi. A red 'IVI Crash!' button is also visible at the bottom.



Issue3. How to integrate demo specific feature in host.

Issue1. How to keep minimized common software stack.

- Current CES 2023 demo image include unnecessarily packages.
- In downstream demo, that is no issue.
 - Because that is only to demo, not upstream.
- In upstream, that is big issue.
 - Because that is common minimized software stack, not demo only.
- What is need?
 - Manage and reduce software package.
 - Why include python??
 - Demo packages must be isolated.
 - Create demo specific package group. Default build does not include that package group.
 - Ex.

Original host image (demo).

packages	Num of packages
total	904
Kernel module(driver)	626
Kernel module(iptables)	99
Pipewire(with demo modules)	60
Pam	16
Core packages	102

CES2023 demo host image.

packages	Num of packages
total	1196
Kernel module(driver)	820
Kernel module(iptables)	99
Pipewire(with demo modules)	63
Pam	16
Python	60
Core packages	136

Issue2. How to build agl-demo based guest container.

- Existing IC container is using Yocto multi config.
 - Yocto multi config is required single bblayers.conf integration.
 - Last two year, I need to heavy work to use yocto multiconfig.
- When AGL demo IVI's build using Yocto multionfig, we need more too hevay work.
 - At leaset, need to purge meta-app-framework, meta-agl-flutter, meta-flutter, meta-agl-demo and meta-agl-demo-ces2023 in host and cluster building.
 - In this case, need to create many bbappend recipes.
 - Need to purge AGL_FEATURES for demo in host and cluster building.
 - On the other hand, these layer and AGL_FEATURES need in IVI demo building.
- Conclude.
 - Will not use Yocto multi config in IVI demo image building.
 - Flutter, HTML5, Qt demo image.
 - Continue to use Yocto multiconfig in host and cluster building. Simple IVI (Momi IVI) will drop out from container integration.

bblayers.conf for IC

```
meta-rcar-gen3
meta-yocto-bsp
meta-selinux
meta-agl-refhw-gen3
meta-pipewire
meta-qt5
meta-agl-ic-container
meta-agl-drm-lease
meta-networking
meta-python
meta-fileystems
meta-virtualization
meta-oe
meta-agl-core
meta-agl-core-test
meta-agl-bsp
meta
meta-poky
```

bblayers.conf for Demo IVI

```
meta-rcar-gen3
meta-yocto-bsp
meta-selinux
meta-agl-refhw-gen3
meta-pipewire
meta-app-framework
meta-agl-flutter
meta-flutter
meta-agl-drm-lease
meta-python2
meta-qt5
meta-agl-demo
meta-agl-demo-ces2023
meta-networking
meta-python
meta-fileystems
meta-multimedia
meta-clang
meta-oe
meta-agl-core
meta-agl-core-test
meta-agl-bsp
meta
meta-poky
```

Upstreaming step

- Update ic-eg github
 - NN base.
- Push to AGL git sandbox
 - NN base.
 - How to push demo extra layer (meta-agl-demo-ces2023)
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