Icon

Description automatically generated

Graphics Training

EV Charger Scenario

For H3 graphics

and EGT

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1. Graphical user interface, application

   Description automatically generatedEV charging user interface:
2. Scenario Description:
3. Black screen
4. Home page and press to the **red button** to change the screen
5. EV charging user interface:
   1. Pressing the **plus** or **minus** buttons will change the battery charge rate, and consequently change the charged time, the remaining time, and the delivered energy.
   2. Green wire animation (change color from original blue color to green)
   3. If no interaction during 10s go to the screen 4
6. Screensaver: **Animation** displayed for the battery widget with a progress bar.
7. When battery is fully charged a **blinking popup** appears in the middle of the screen with “ battery fully charged” message. If **minus** button is pressed, battery charged rate will decrease and you go back to the screen 3
8. Assumption for the text update using + / - buttons:

Diagram

Description automatically generated

**Hypothesis:**

**Output Power** = OP = 25KW (fix value)

**Battery Size** = BS = 50KWh (fix value)

**Pourcentage of battery charged** = P ; P=0% at t=0 ;

**Charged Time** = CT = (BS/OP) - RT

**Delivered Energy**: DE (KWh) = OP x CT

**Remaining Time** = RT

RT = (BS/OP) \* (1 -P/100)

**Example**:

**OP**=25KW fixed value

**P** =25% using + or – buttons

**RT**= (50/25) \* (1 - 25/100) = 2 \* 0.75 = 1,5 hrs

**CT** = 2- 1.5 = 0.5h = 30 min

**DE** = 25 x 0.5= 12.5 KWh

1. Task 1 - Managing simple widgets – Image, Button, Labels

Add images, labels, button widget (setting image pressed/released), position, size, set alpha level using schemes

Graphical user interface

Description automatically generated

1. Task 2(a) – Managing Button events and screen transition

Pressing on the red Button will jump to the next screen.

Concept of multiple screen will be introduced.

A screenshot of a car

Description automatically generated with medium confidence

1. Task 2 (b) – Dynamic String & RTC

Displaying Date/Time: (Date and time under Linux environment)

A screenshot of a car

Description automatically generated with medium confidence

1. Task 3- Animation & timers

On pressing button + / - button (button event), the battery level will change (animate)

And the green wire will be animated (change color, hide/no hide)

A screenshot of a car

Description automatically generated with medium confidence

After 10 seconds (timeout event) the following screen will show with battery level animation and a pop up for the text

A picture containing diagram

Description automatically generated

if less than 100% charge required it will show will battery level animation and a pop up for the text

After pressing on **K1** button on the Display , it will show

A screenshot of a car

Description automatically generated with medium confidence

If battery is fully charged using + button, following will show

A screenshot of a computer

Description automatically generated with low confidence

1. Topics Covered:
2. Buttons, labels, images, schemes
3. Multi layers
4. Button events and screen transitions
5. Timers & RTC
6. Dynamic Strings
7. Canvas Animation and sprite