2011 Cellular Gaming Phone

quietly brilliant
Target Market

12-28 years old
Males and Females
Middle school– College level
Portability and usability are important aspects of modern hand-held devices
Technologically savvy
Able to easily understand multiple user interfaces
Enjoys both mobile gaming and social networking
Design Goals

Tactile gaming experience with all the functions of a modern smart phone

Large O-LED display for gaming, camera live-view and multimedia viewing

Touch screen for internet browsing, dialing and multimedia navigation

Full keyboard for ease of texting and web browsing

Sliding lock button to lock the buttons and touch screen to avoid accidental dialing or input

Size: Comfortable for two handed control and small enough to fit into a pocket

Aesthetically acceptable for multiple social situations

Neutral colors used to color the exterior surface

Vibrant colors used to color the interior and highlights
Materials & Finishes

Glossy black
Chrome
Textured surfaces
Sharp/Cutting edge
Durable/Hard
Valuable
Materials & Finishes

- Brushed aluminum
- Clear crystal plastic
- Flat/Matte plastic
- New age technology
- Cool in temperature
- Begs to be touched
Materials & Finishes

Glossy white
Clear crystal plastic
Flat/Matte plastic
Simple
Elegant/Luxury
Soft and smooth
Clean
Safe
John
-13 years old
-7th grade student
-Lower middle class bracket
-Average student
-Has a strong desire to technologically keep up with his friends and family
-Enjoys spending time with friends and playing games

Jen
-17 years old
-Junior in high school
-Upper middle class bracket
-Straight A student
-Must keep up to date with the latest social news
-Member of many student groups and sports teams
-Loves to spend time with her friends and family

Dan
-20 years old
-3rd year college student
-Upper class bracket
-Interning at a national corporate headquarters
-Always looking to get ahead in the intrapersonal and business worlds
-Must always be up to date with electronic technology and status icons
-Enjoys a good challenge
Current Concepts

Sony PSPhone
Sony PSP2
Sony PSP Go
Sony V191 PSP Phone
Sony PSP T3
Cool8800C (China)
LG 3D Game Phone
LG Versa Game Pad
C2000 (Europe)
E75 Game Phone (Europe)
Xbox Hybrid Mobile Phone
Thumbnail Sketches

Form studies
Balancing form with function
Button layout studies
Thumbnail Sketches

Form studies
Balancing form with function
Mechanics studies
Thumbnail Sketches

Form studies
Balancing form with function
Mechanics studies
Clear interface
Full-scale Design Sketches

Single, high definition multifunction touch screen

Integrated smart phone and game mechanisms

Multi-function buttons and side bumpers

Phone speaker distance to fit user comfort

Concave buttons for easier storage and fewer accounts of accidental use

Thick enough to sustain wear and tear from use as a gaming device

Illuminated LED icon
Perspective Sketch

Organic form design

Curved grip surface on back to conform to user grip

Camera placement to mimic modern digital camera use

Movable camera lens cover

Aesthetic/ergonomic button configuration thumbnails
Perspective Sketch

Geometric form design

Curved grip surface on back to conform to user grip

Camera placement to mimic modern digital camera use

Aesthetic/ergonomic button configuration thumbnails
Full-scale Design
Sketches

- Single, high definition multifunction touch screen
- Clear screen frame for new age/ futuristic aesthetic
- Folded use: touch screen smart phone
- Dual fold: gaming device
- Concave buttons for easier storage and fewer accounts of accidental use
- Camera placement on wing allowing for normal camera interface as well as video chatting capabilities
- Strong hinging to support wear and tear
- Folds up for easy transport and pocketability
- Illuminated LED icon
Perspective Sketch

Soft geometric form design

Camera placement to mimic modern digital camera use with touch screen controls

Suspended LED touch screen and backlight mechanism within a clear plastic shell

Gap between rear pieces to ease unfolding use
Full-scale Design
Sketches

Single, high definition multifunction touch screen

Clear screen frame and laser etched logo for new age/futuristic aesthetic

Thin and sleek for aesthetic value and pocketability

Folded use: touch screen smart phone

Dual slide: gaming device (also extends the phone speaker placement for multiple users)

Concave buttons for easier storage and fewer accounts of accidental use

Two cameras: one to mimic a modern camera interface and the other for video chatting capabilities
Perspective Sketch

Bumper placement creates a symmetrical design with two functioning triggers and two static aesthetic features.

Suspended LED touch screen and backlight mechanism within a clear plastic shell.

Ridges on the back sliding panels for increased grip for slide operation.
Full-scale Design Sketches

Dual high definition screens (primary multi-use touch screen on top, secondary display below)

O-LED displays for the flexibility needed to conform to the bevel design

Clear screen frame for new age/ futuristic aesthetic

Screen frame is a cover for a full inner keyboard

Ergonomic bevels to match user comfort

Integrated phone speakers and gaming buttons

Single sided 180° twist for camera versatility

Concave buttons for easier storage and fewer accounts of accidental use
Perspective Sketch

Dual O-LED displays sandwiched within top folding cover

Sound speakers located on the top to face user

Metal mesh aesthetic feature on the sides of the device
Illustrator Rendering

Design 1

Geometric form

Various button configurations

Matte white plastic finish

Glossy white plastic finish

Glossy black plastic finish

Colored/clear plastic trigger

Chamfered/filletted edges

Brushed aluminum accents

Chome accents

Colored plastic accents

Colored logo
Illustrator Rendering

Design 1
Geometric
Glossy black plastic finish
Clear plastic triggers
Chome accents wraps the form on the top and sides
Chamfered edges
Colored plastic accents surround the buttons
Logo clear matte plastic when off, illuminates red
## Illustrator Rendering

**Design 2**
- Dual slider
- Brushed aluminum finish
- Soft aluminum finish
- Glossy black plastic finish
- Clear plastic triggers
- Chrome accents
- Tinted aluminum accents
- Colored plastic accents
Illustrator Rendering

Design 2

- Dual slider
- Glossy black plastic finish
- Clear plastic triggers
- Chrome strip wraps both sliding forms surrounded by colored plastic accents
- Secondary buttons and cameras surrounded by chrome and colored plastic strips
- Dark colored rubber surrounds main D-pads for stability and motion
Illustrator Rendering

Design 3
One-sided twist
Soft aluminum finish
Clear plastic triggers
Chome accents
Metal mesh side panels
Full soft gray plastic keyboard
Clear, folding, dual screen display/interface
Illustrator Rendering

Final Design

Follows style of HTC Driod

Laser etched icon in the clear plastic top surface

Dimensions:

Closed
11.4cm x 6.4cm x 1.2cm

Open
18.8cm x 6.4cm x 1.2cm
Illustrator Rendering

Design 2

Dual slider

Fully rendered perspective sketch to match final design

Materials

Clear polycarbonate for screen frame and bumpers

Glossy black plastic for main body

Medium gloss red plastic binding accents

Matte and polished aluminum for additional rocker buttons, switches, LCD screen/backlight/battery frame and wrapping metal strip accent

Retina display LCD multifunction touch screen
**Solidworks Rendering**

Device position: Closed

Primary use of the touch screen for all functions in this configuration

Use of primary camera via touch screen and bumper

Hidden gaming buttons and secondary camera

Secondary camera can still function behind the polycarbonate frame

Holes in the top polycarbonate frame for proper speaker and microphone function
Solidworks Rendering

Device position: Open

Use of primary directional pad and gaming buttons as well as secondary button controls in this configuration

Secondary camera exposed

Touch screen becomes a secondary control

- LCD screen in matte aluminum frame
- Directional Pad
- Gaming buttons
- External speakers
- Polycarbonate LCD screen frame
- Secondary gaming buttons
- Secondary camera
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