



SWITCHGEAR
SAFE & SURE

DESIGN AND DEVELOPMENT OF MNX STARTERS

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INDUSTRIAL DESIGN

The professional service of creating and developing concepts and specifications that optimize the function, value and appearance of the products and systems for the mutual benefit of both user and manufacturer

ELEMENTS OF DESIGN

- Form
- Aesthetics
- Interaction and communication
- Ergonomics
- Telesis
- Spatial placement



The background image shows a showroom for electrical switchgear. On the wall, there is a logo consisting of a circle with a stylized 'L' and 'T' inside, and a sign that reads 'SWITCHGEAR SAFE & SURE'. Below the sign, several large electrical switchgear units are displayed on a long counter. In the background, more switchgear units are stacked on shelves. A framed picture of a landscape is visible on the left wall.

STRATEGY

While designing a product.....
..design work first.

Product should match the work but not the
vice versa.



SWITCHGEAR
SAFE & SURE

DESIGN BRIEF

To create a new identity for MNX starters enhancing the function, appearance and value.





SWITCHGEAR
SAFE & SURE

STUDY AND ANALYSIS





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STUDY OF EXISTING DESIGNS







RECOGNISING THE NEED OF

- POWER INDICATION
- INDICATION FOR 3-PHASE POWER
- CURRENT
- VOLTAGE
- INGRESS PROTECTION



SWITCHGEAR
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CONCEPTUALISATION





SWITCHGEAR
SAFE & SURE

FORM

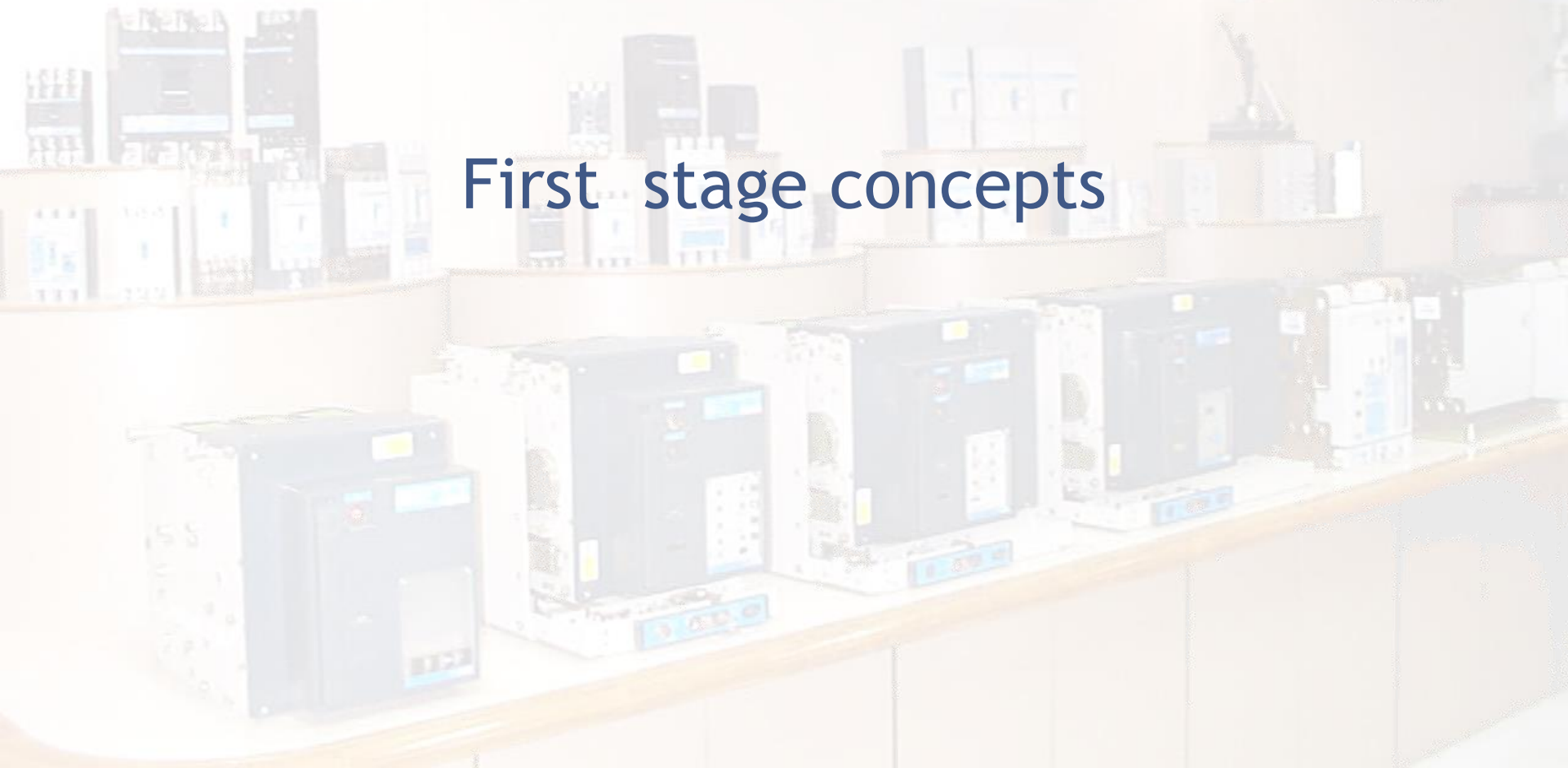
Form should be compatible with
function, usability, appearance and value....expression
comes later



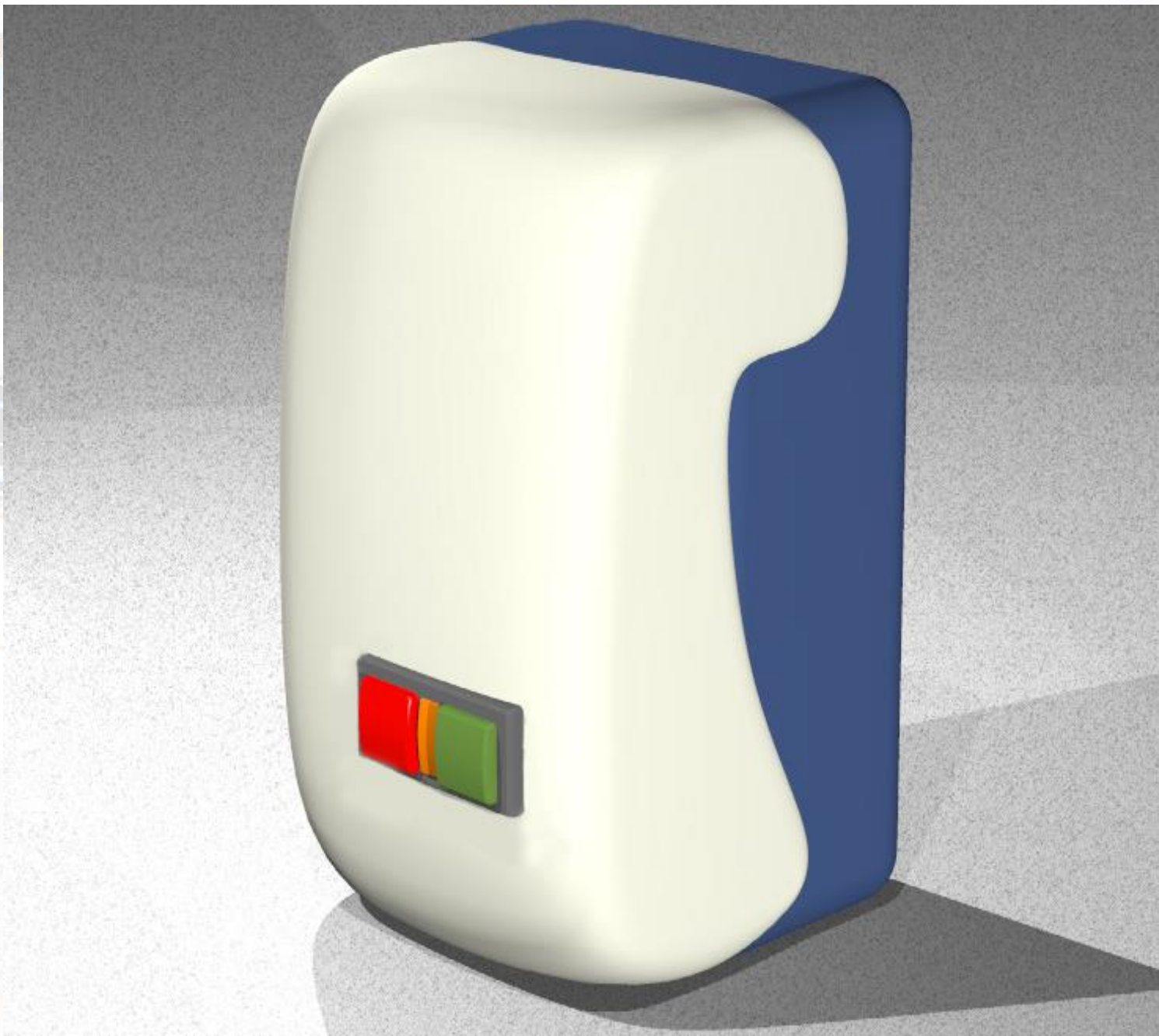


SWITCHGEAR
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First stage concepts

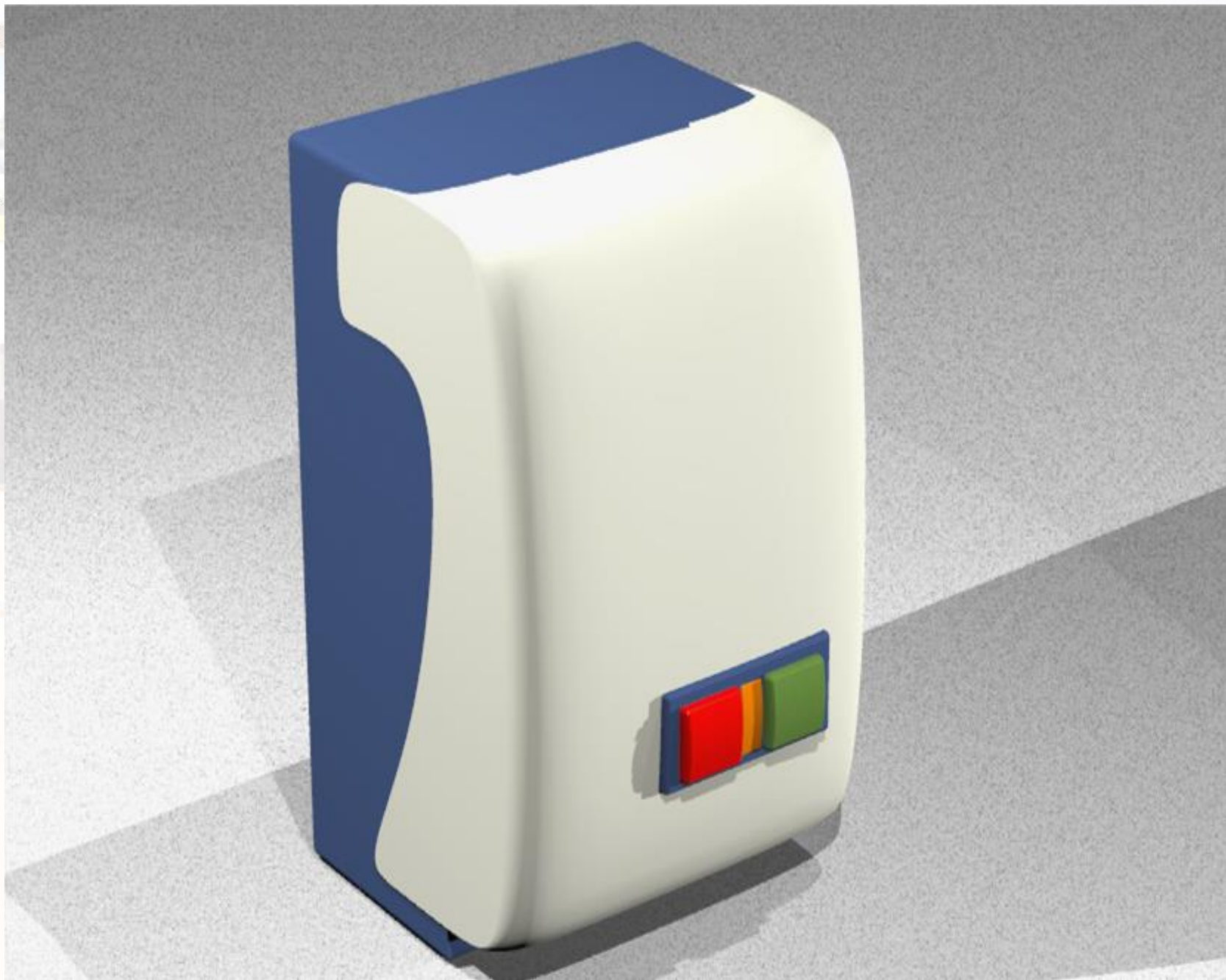


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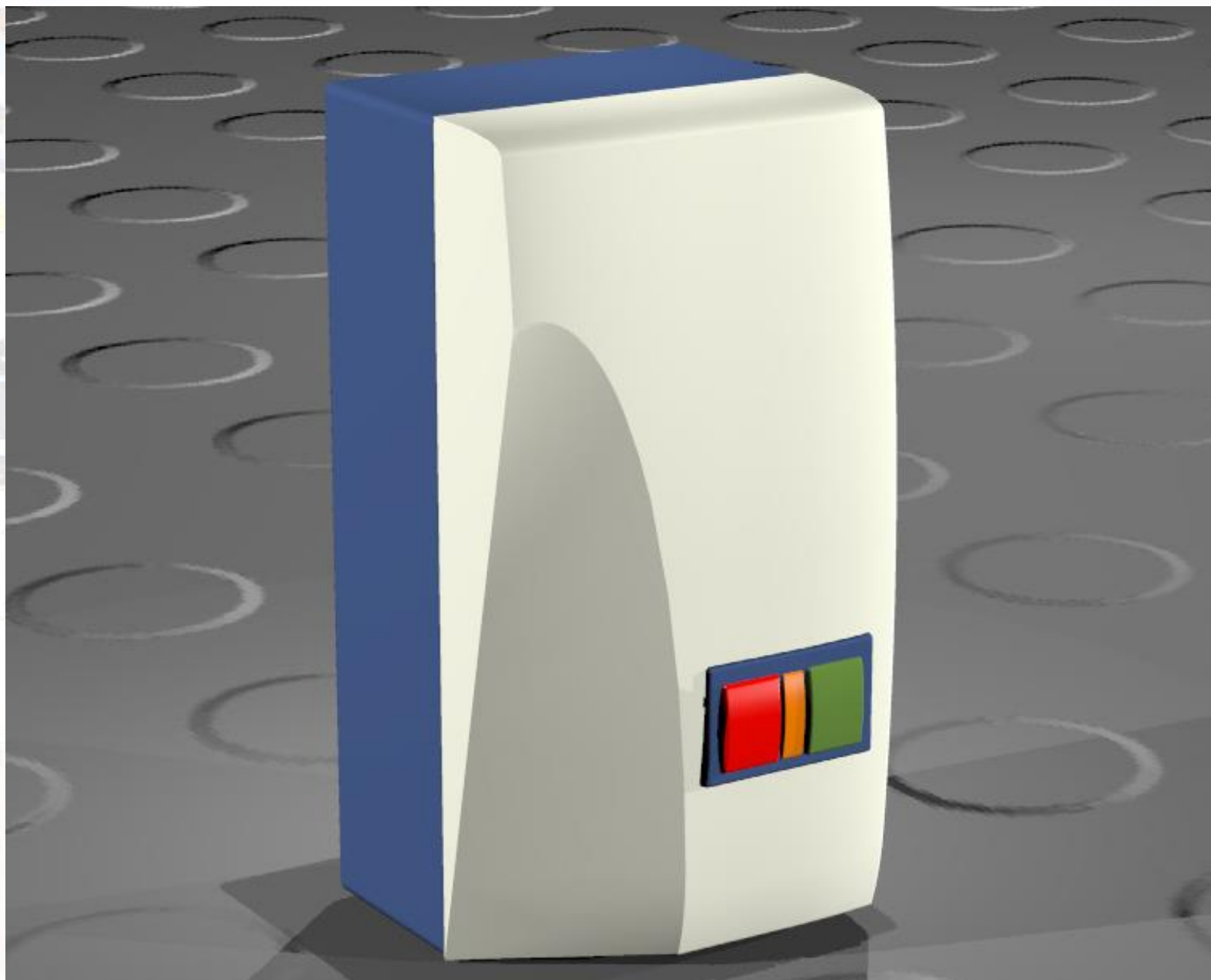


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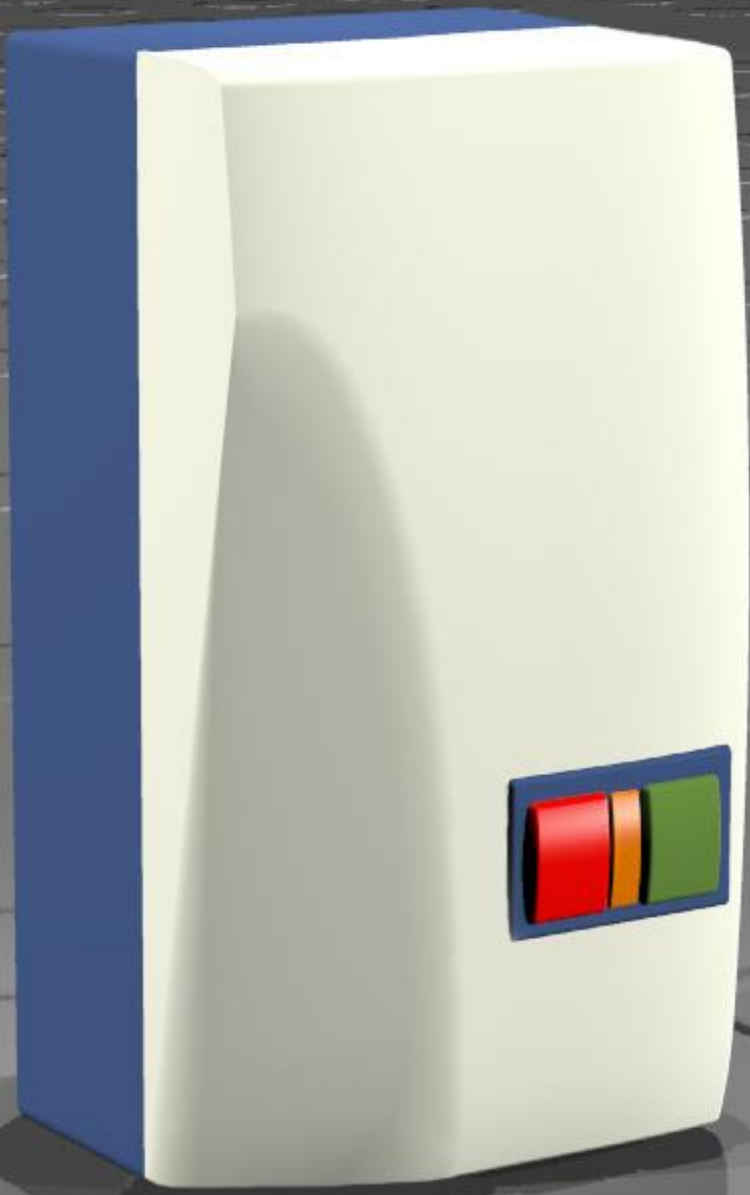




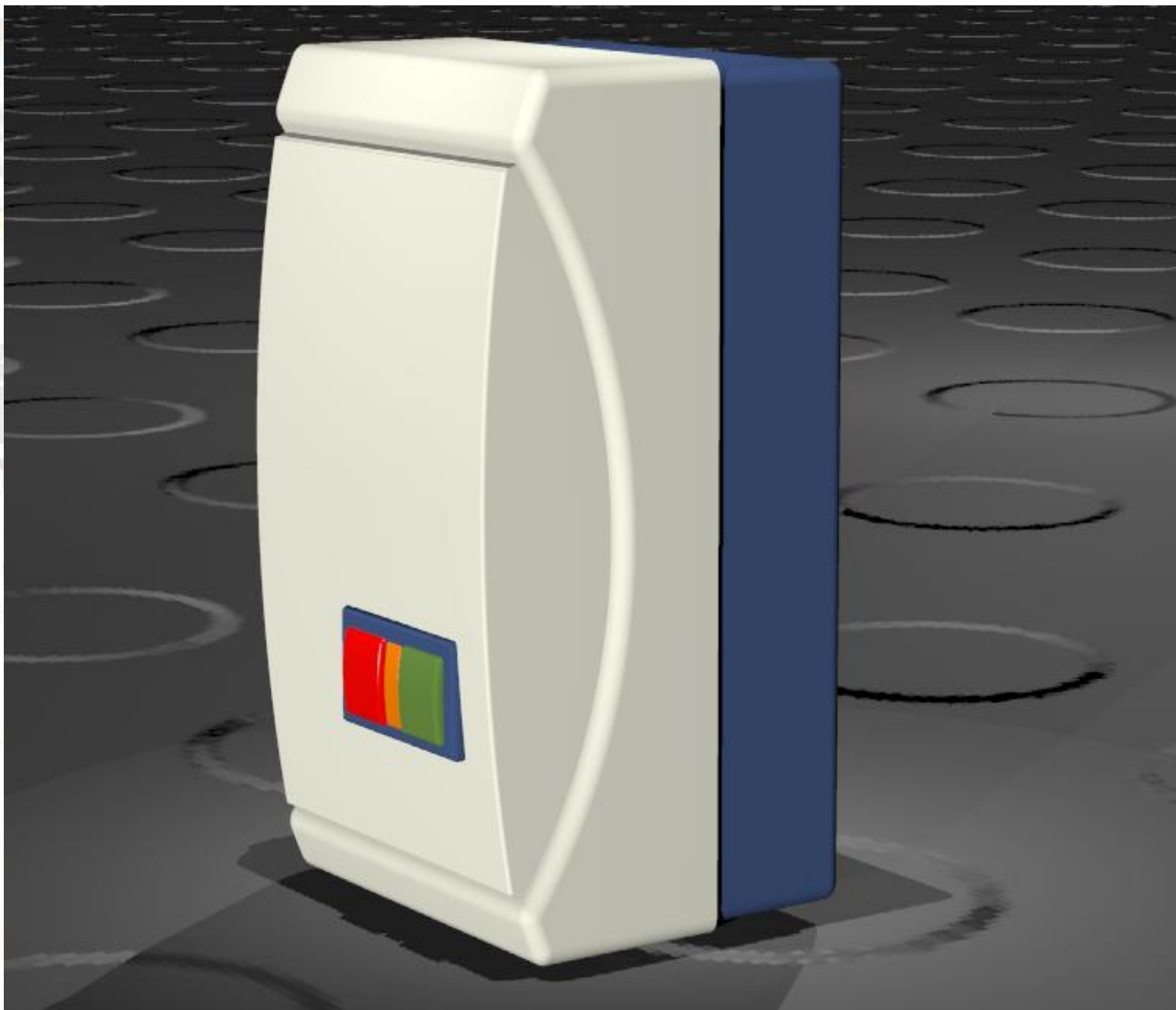
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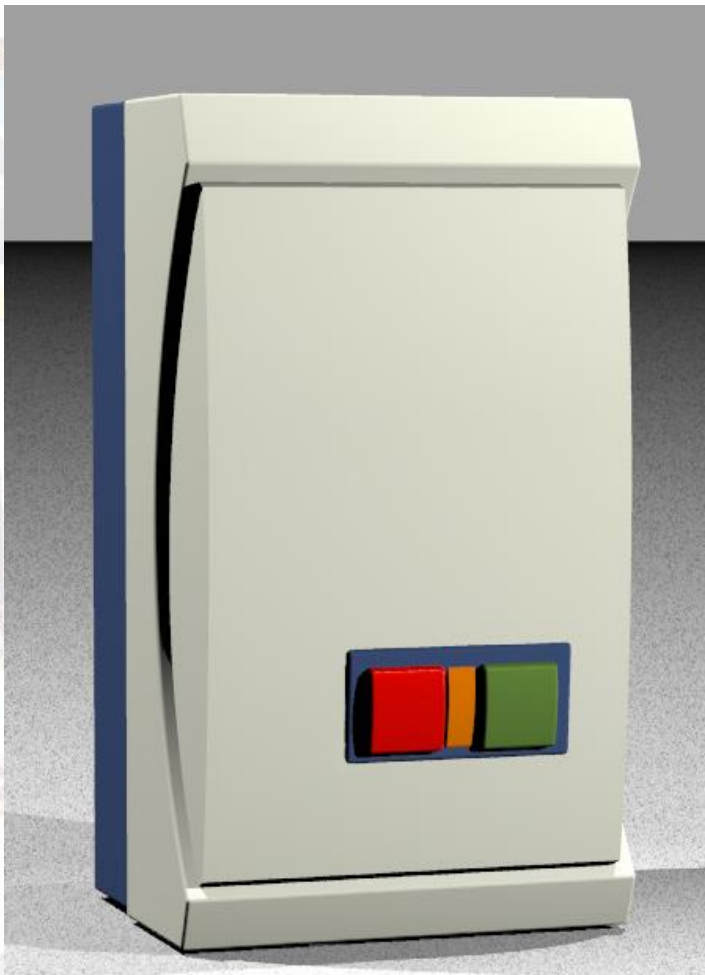


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UNCLEAR CURVES...

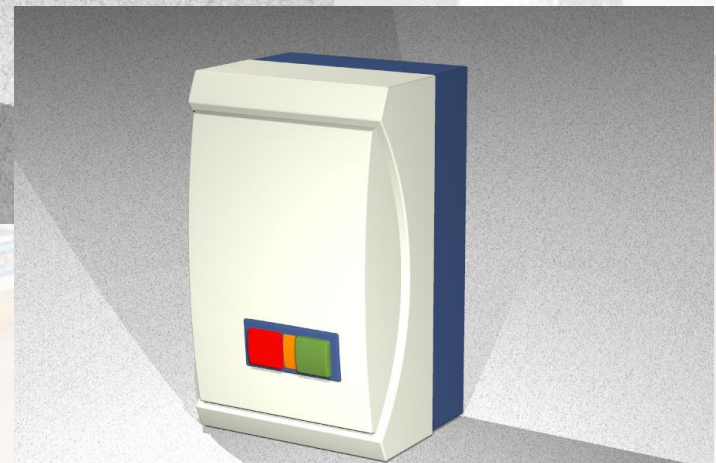
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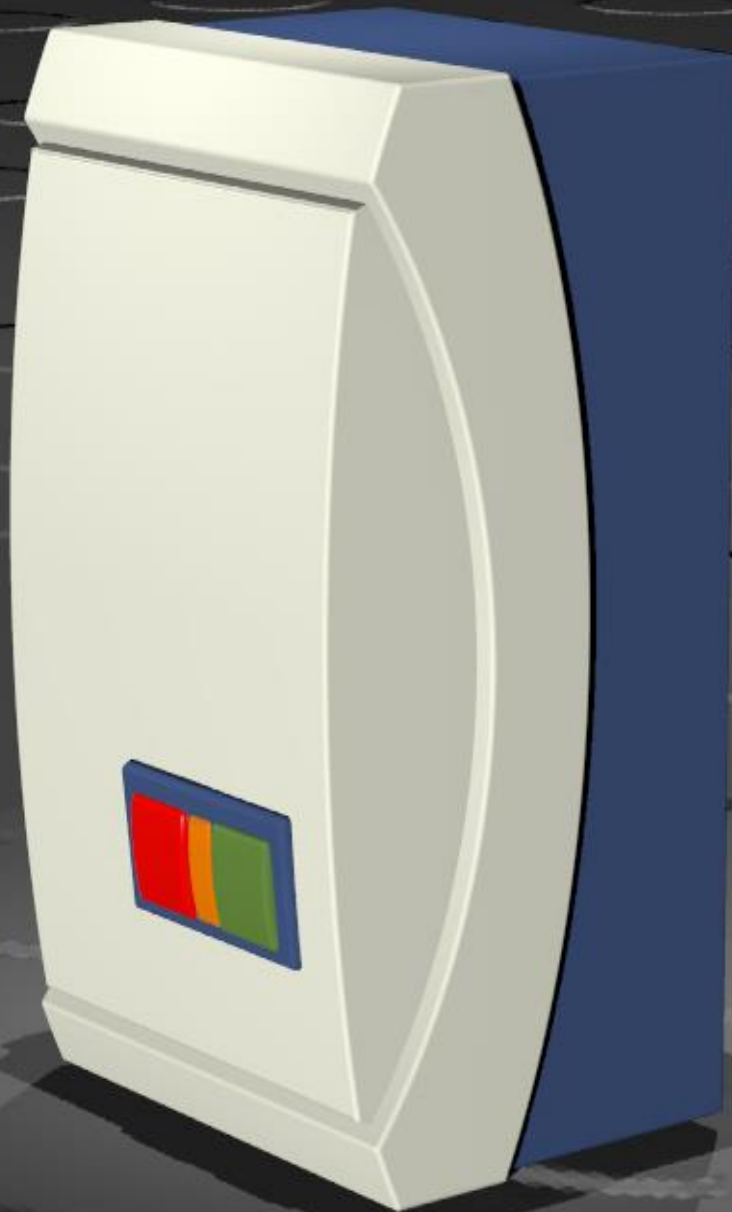


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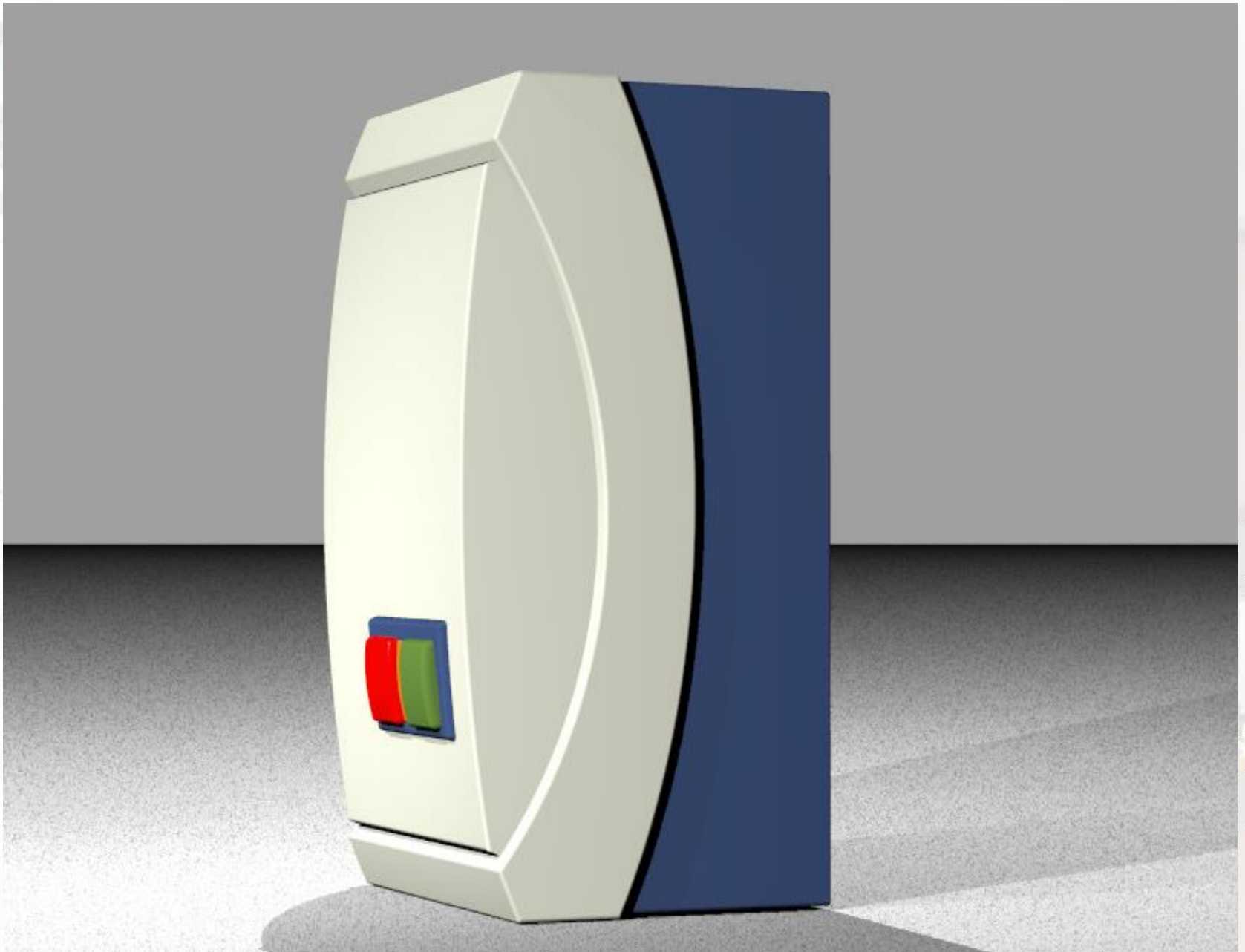


APPEALING CURVES....



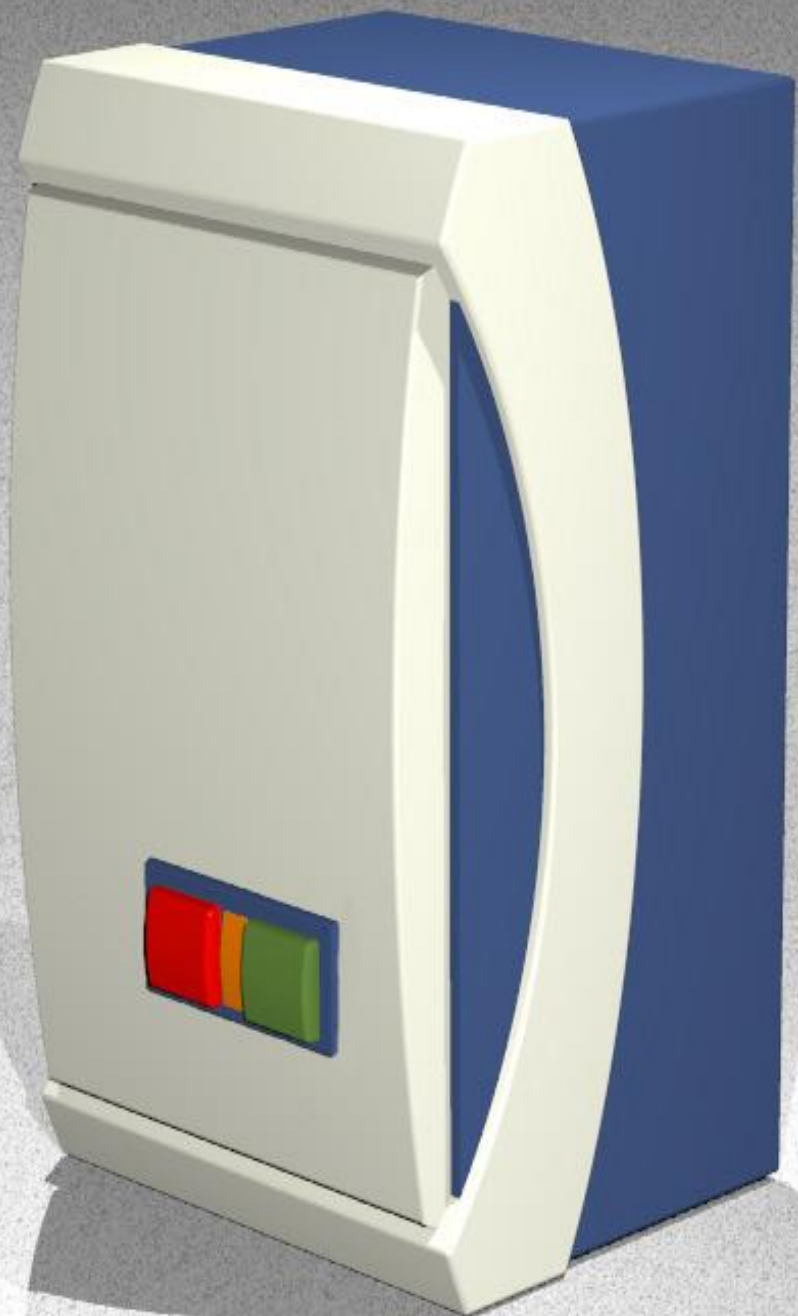


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MOBILITY....

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SWITCHGEAR
SAFE & SURE

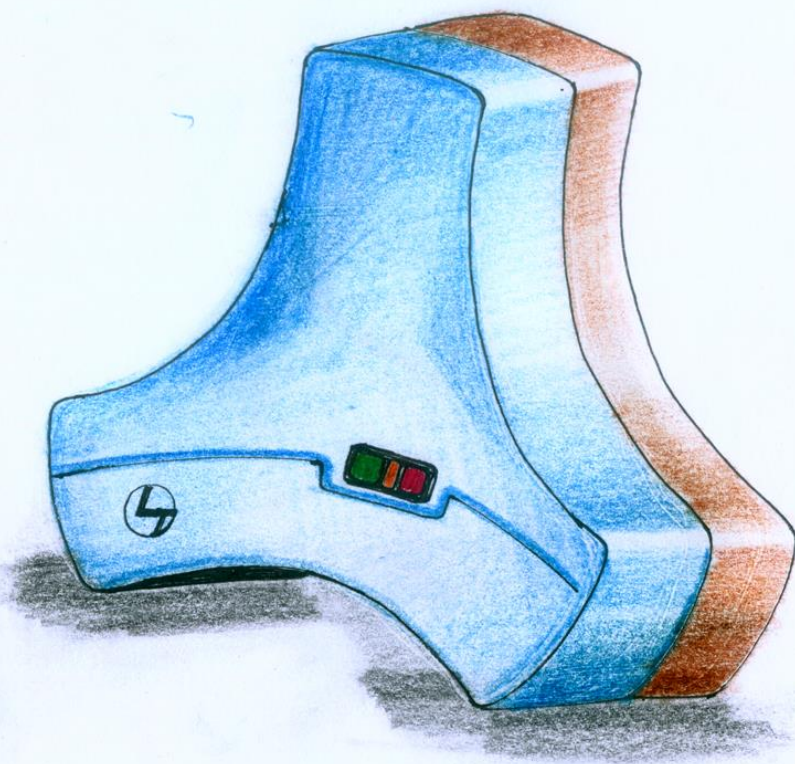
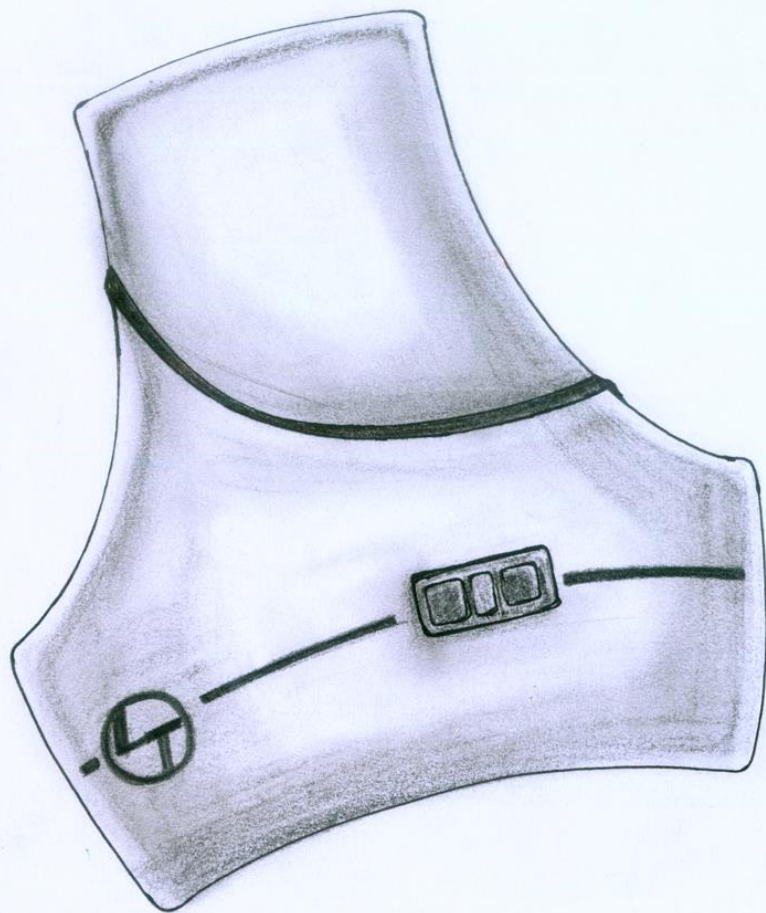
OUT

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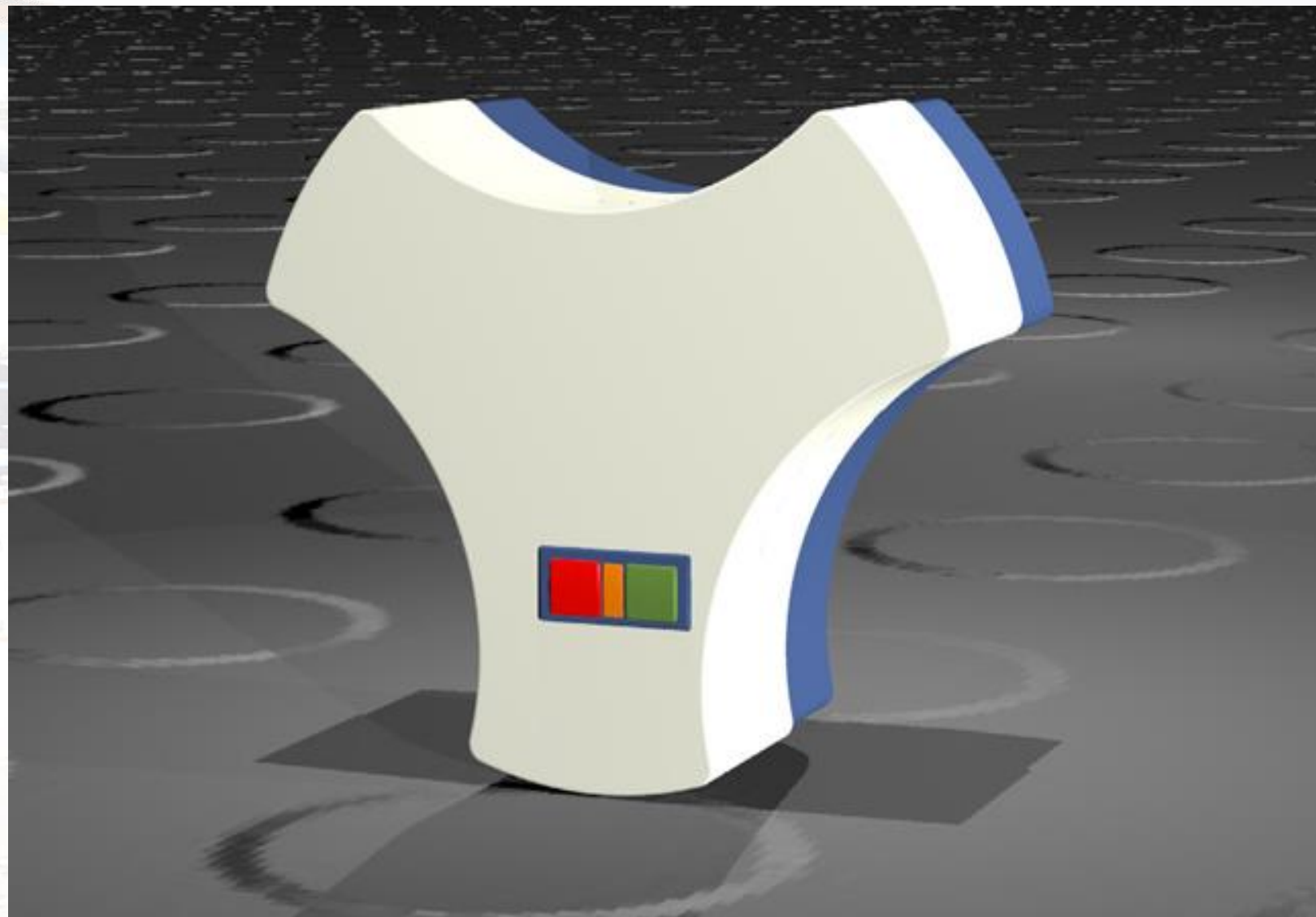
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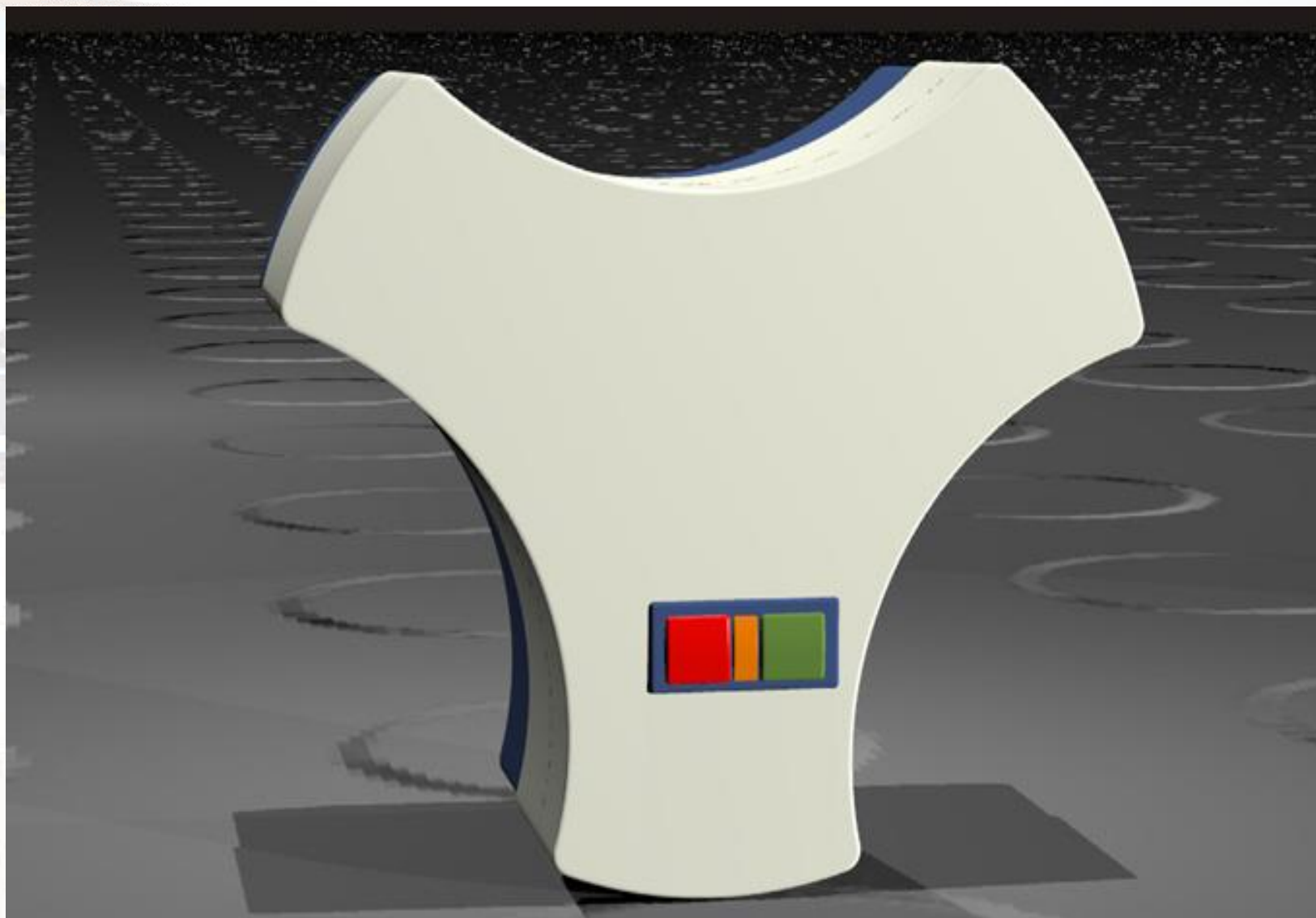
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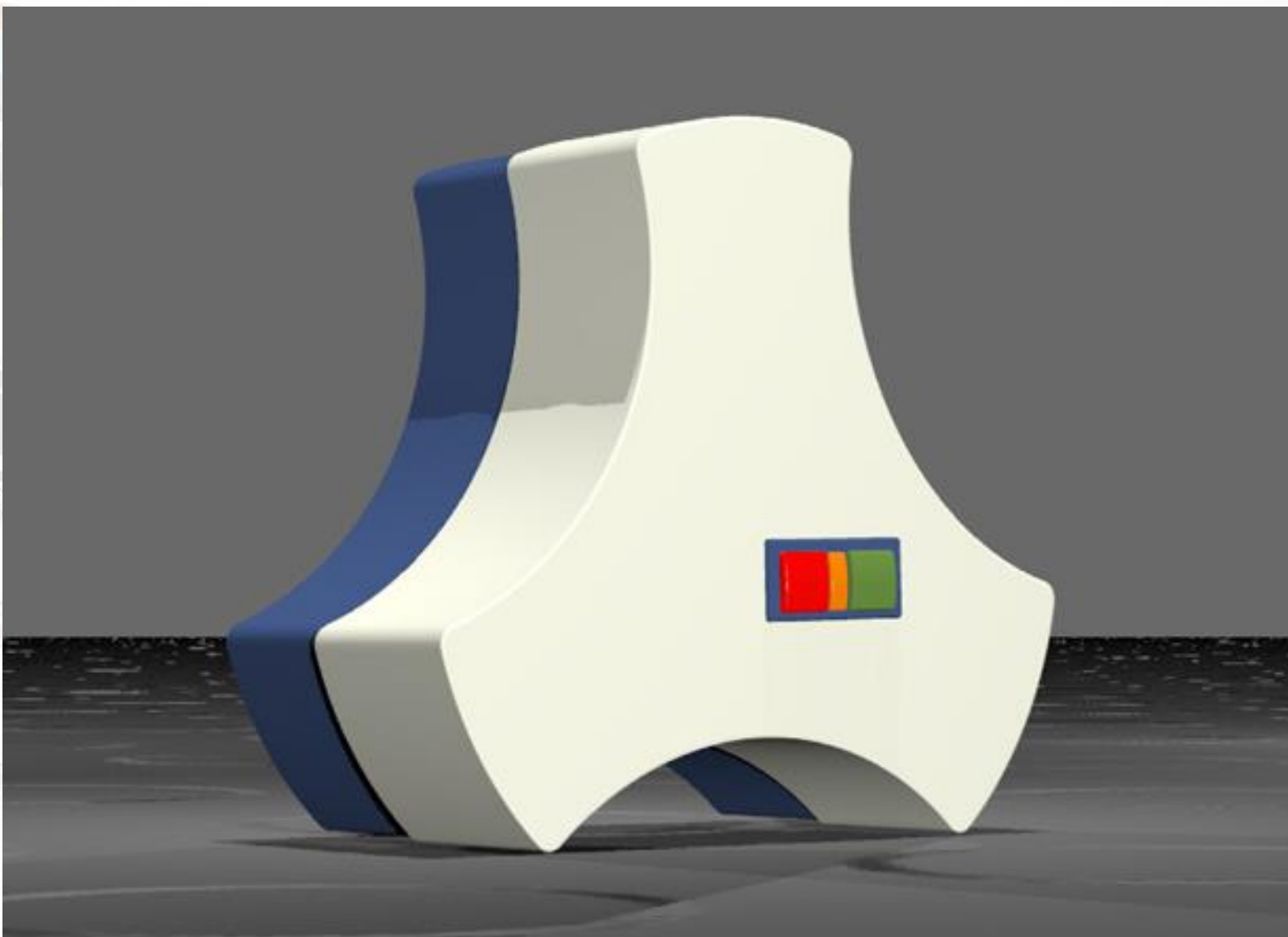
LIBERTY



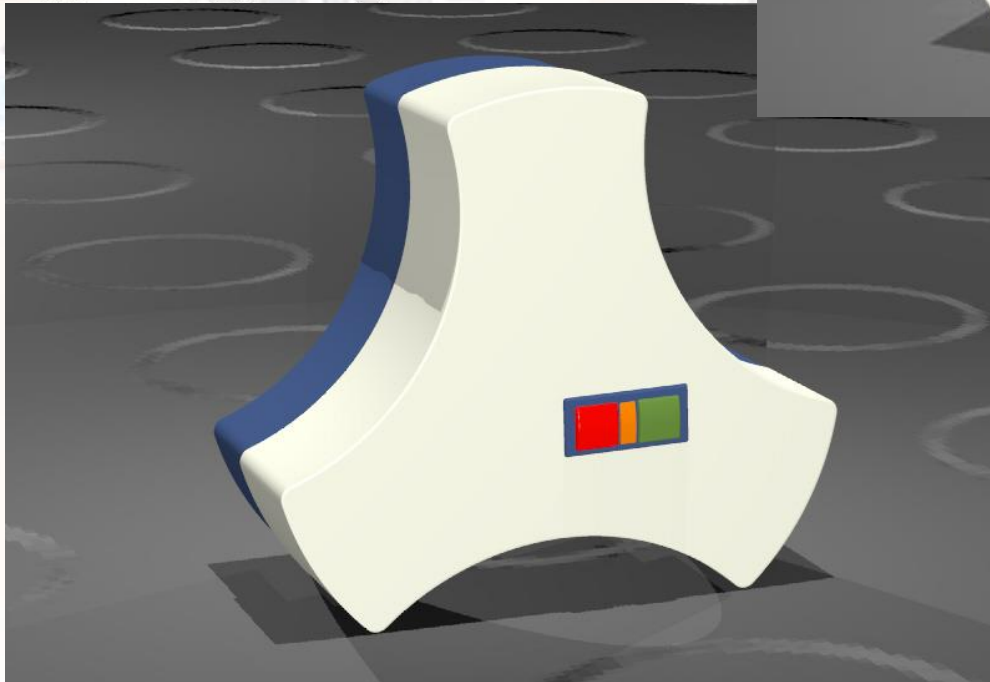
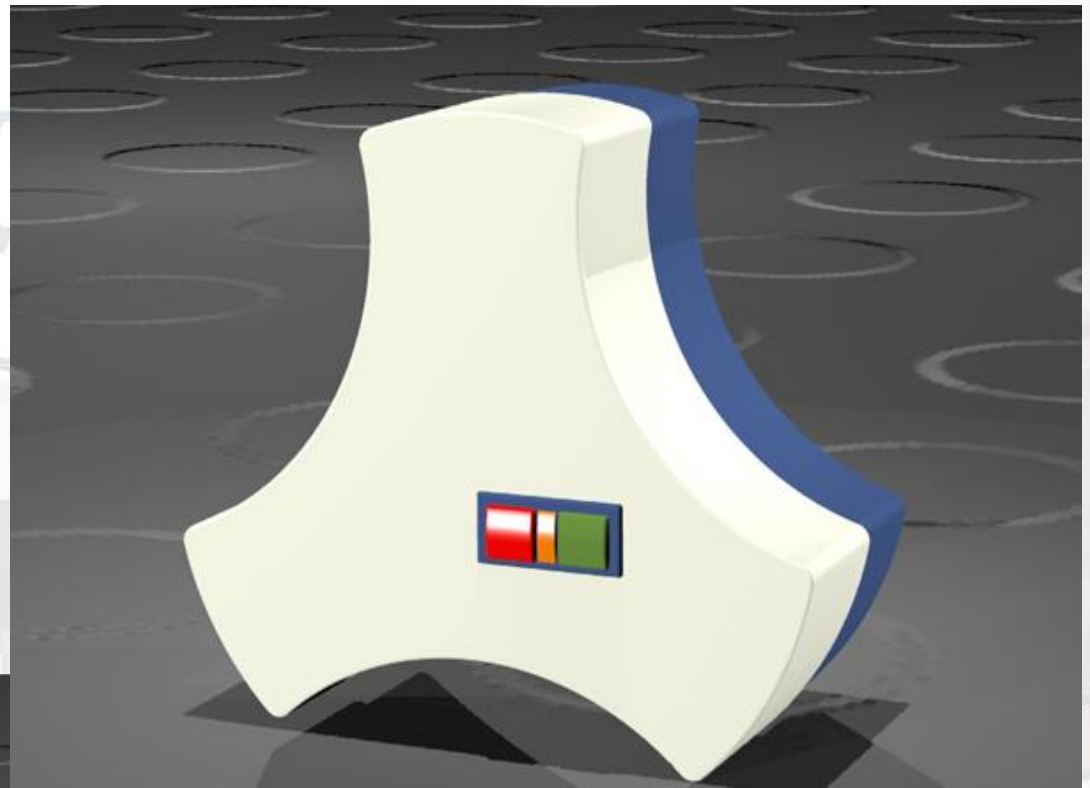
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STABLE....



BALANCED...





USER SURVEY

SWITCHGEAR
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- SPECIFIED USER GROUPS
- PREPARING THE QUESTIONIRE
- INFERENCES FROM THE USER STUDY





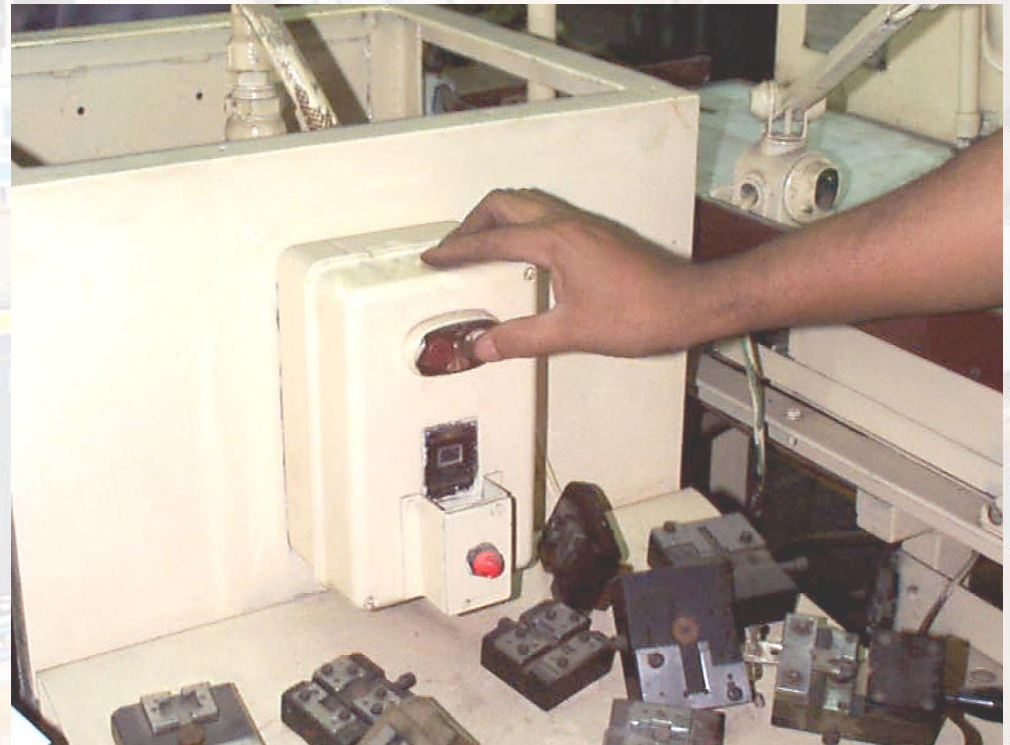
SWITCHGEAR
SAFE & SURE

Observing the user at his work place





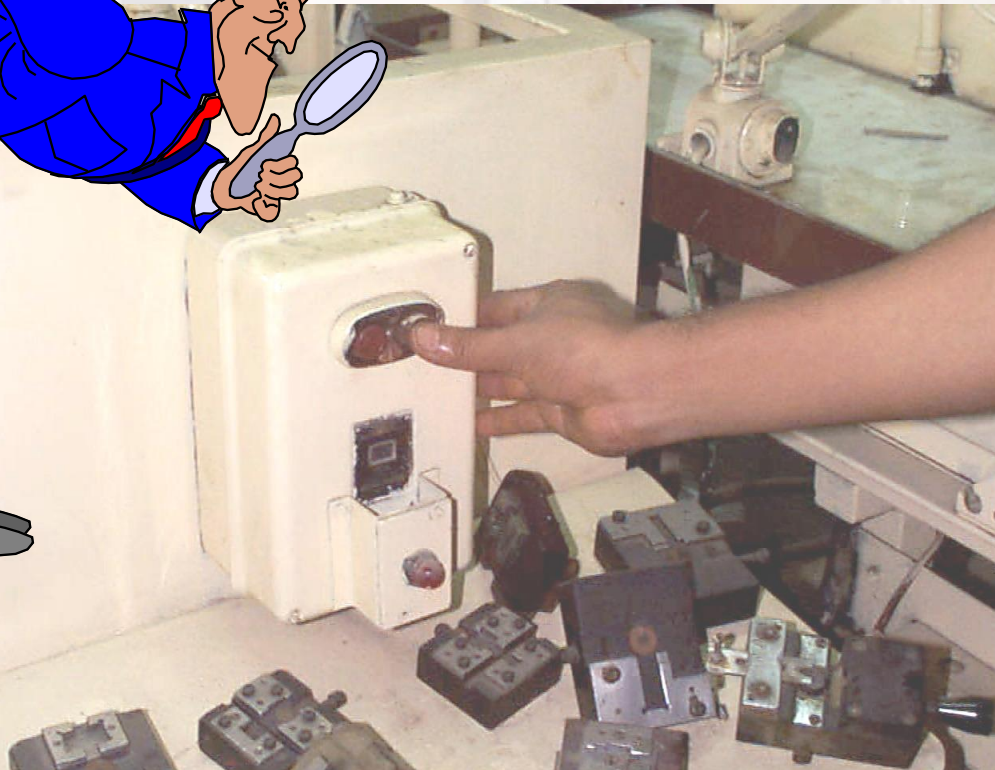
SWITCHGEAR
SAFE & SURE





Some thing different

Observing avidly..





SWITCHGEAR
SAFE & SURE

Inferences from the user study



Case-1



SWITCHGEAR
Case-2



Case-3



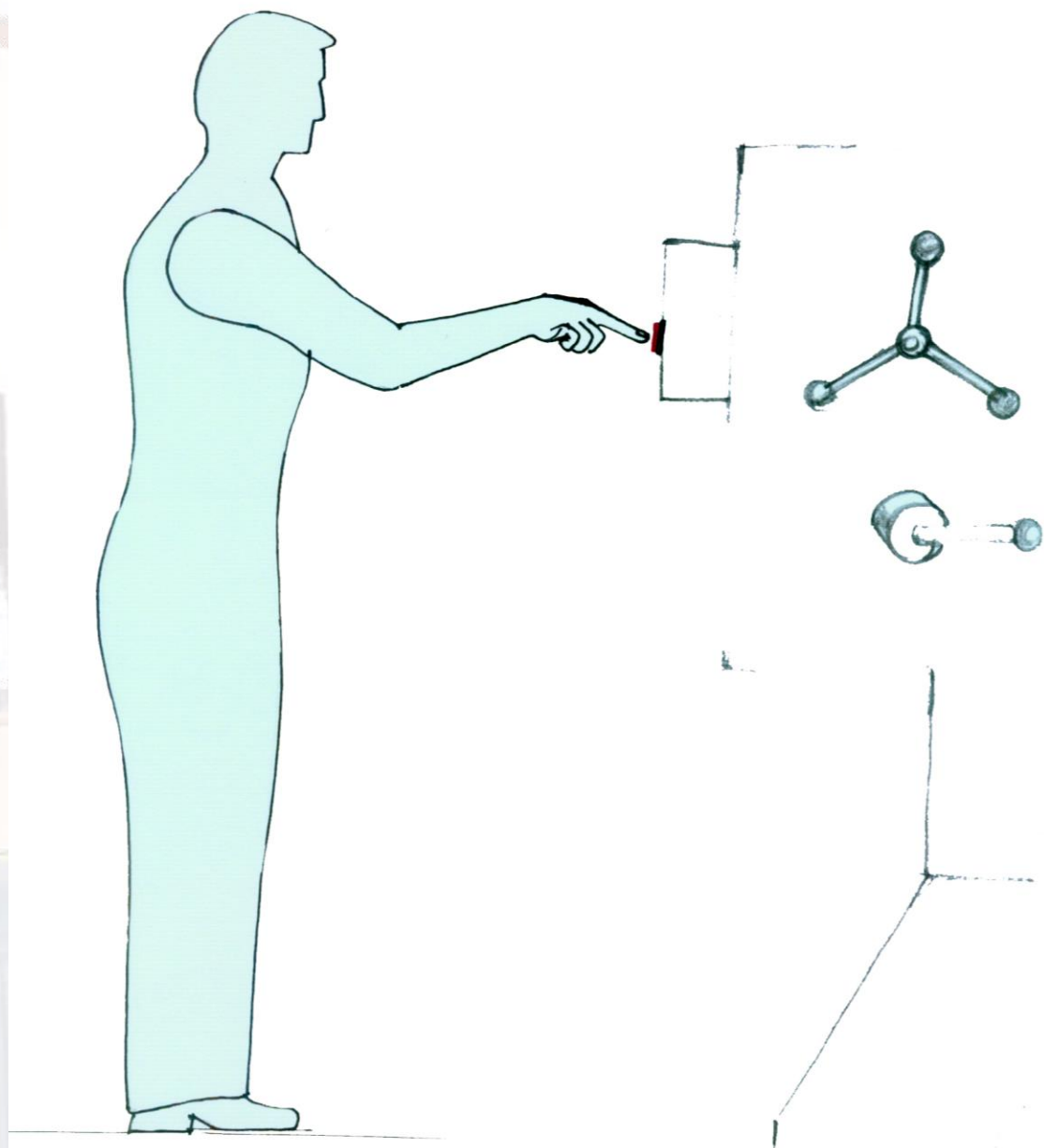


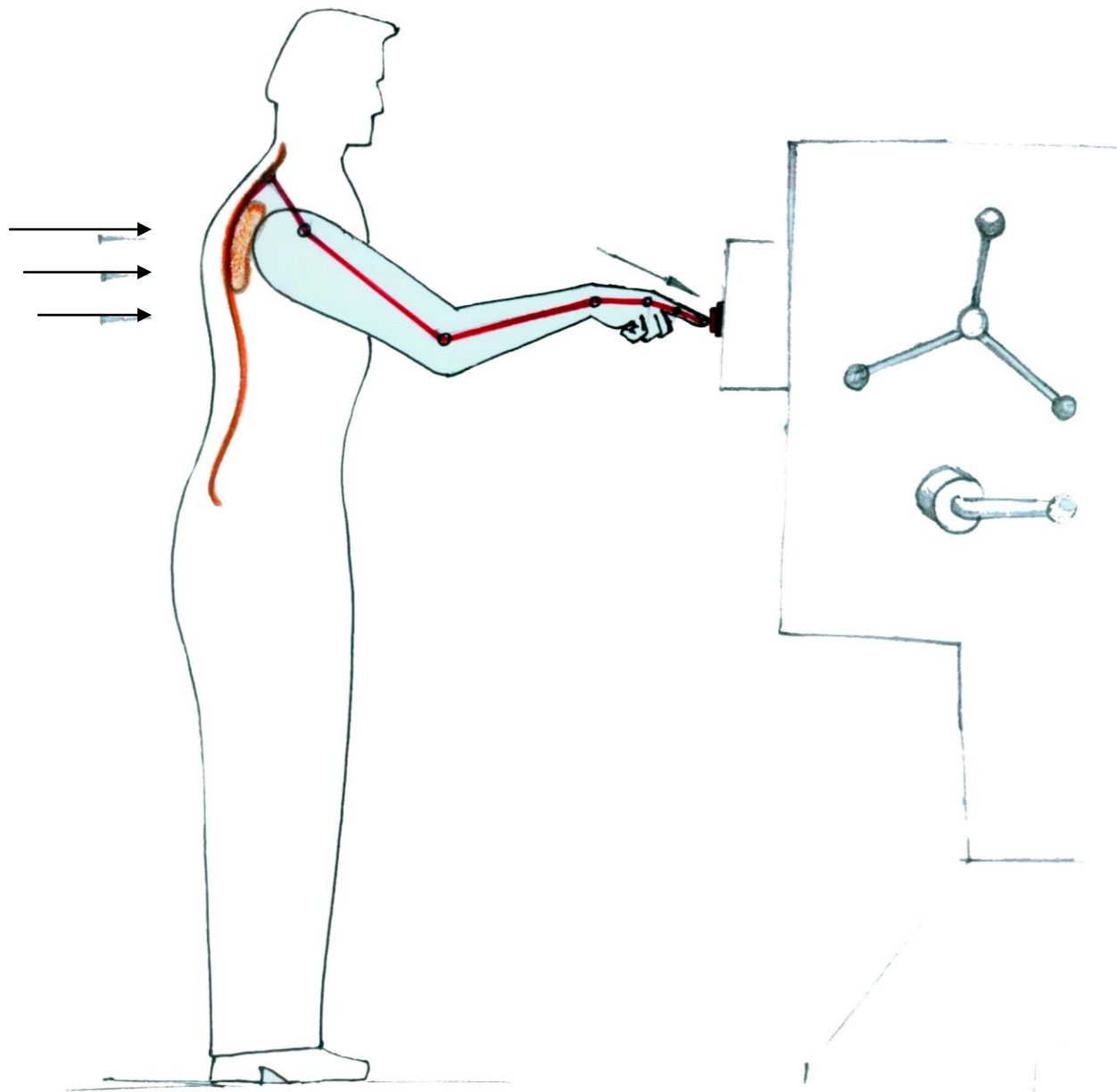


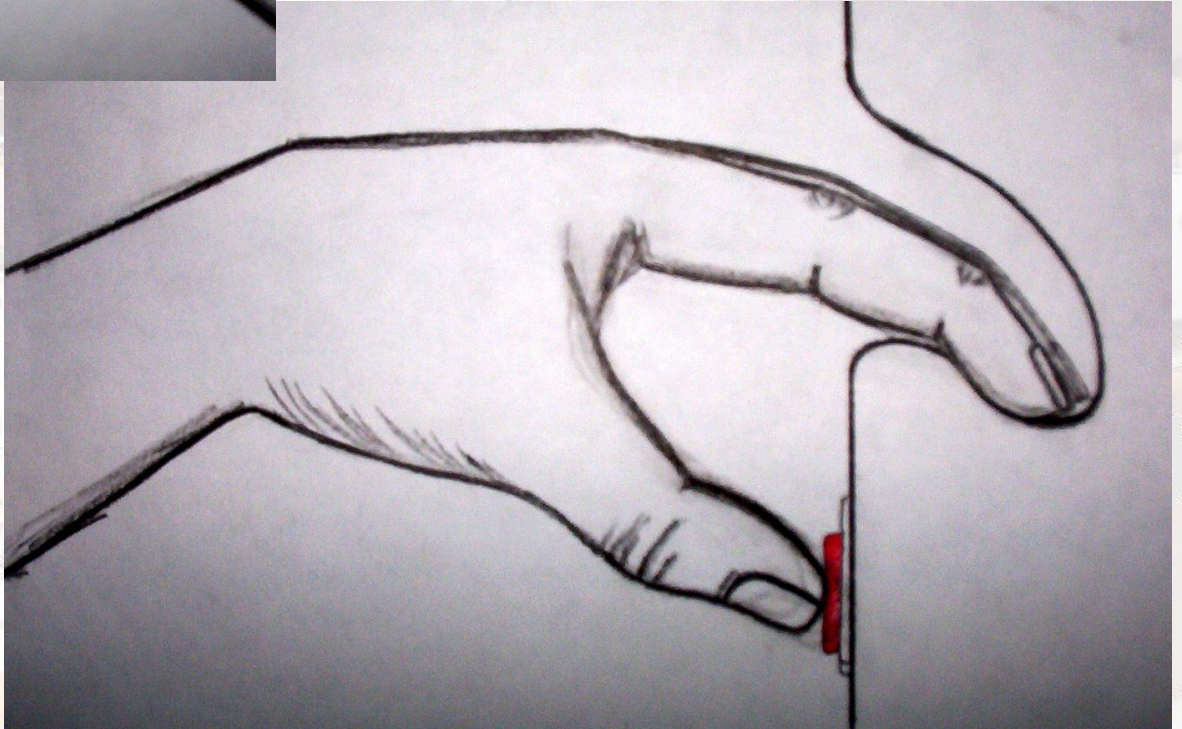
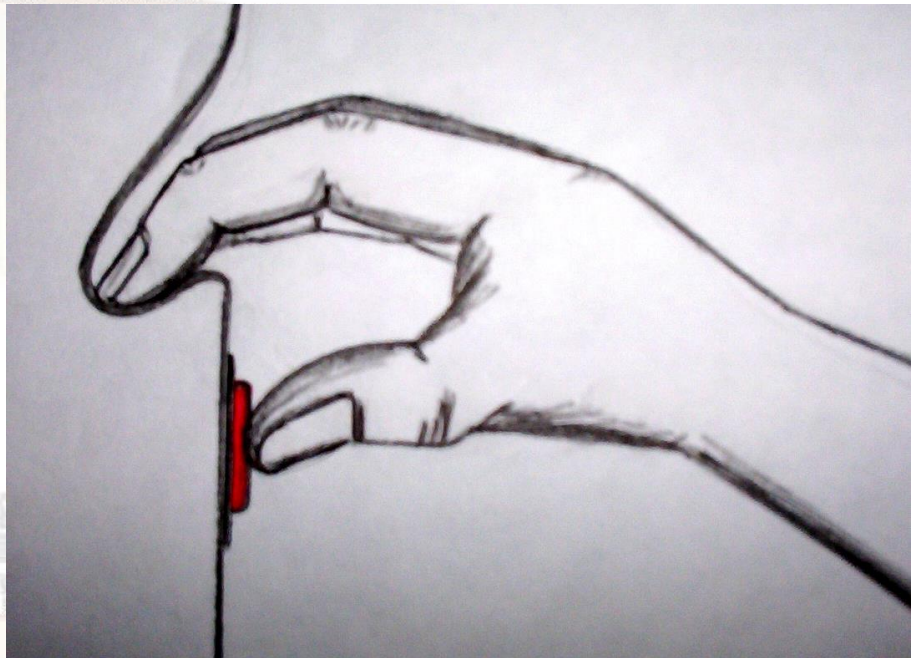
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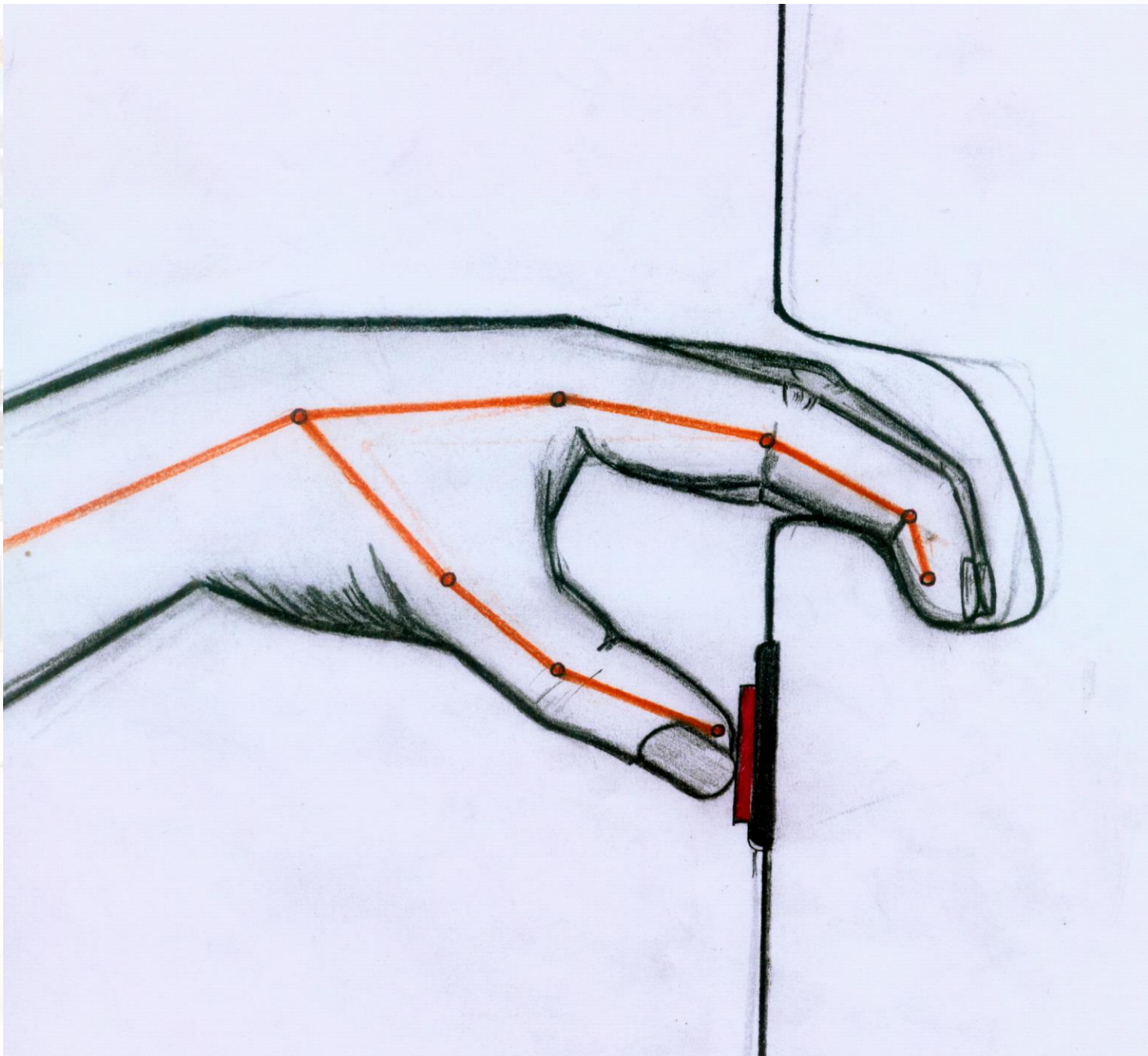
ERGONOMIC STUDY

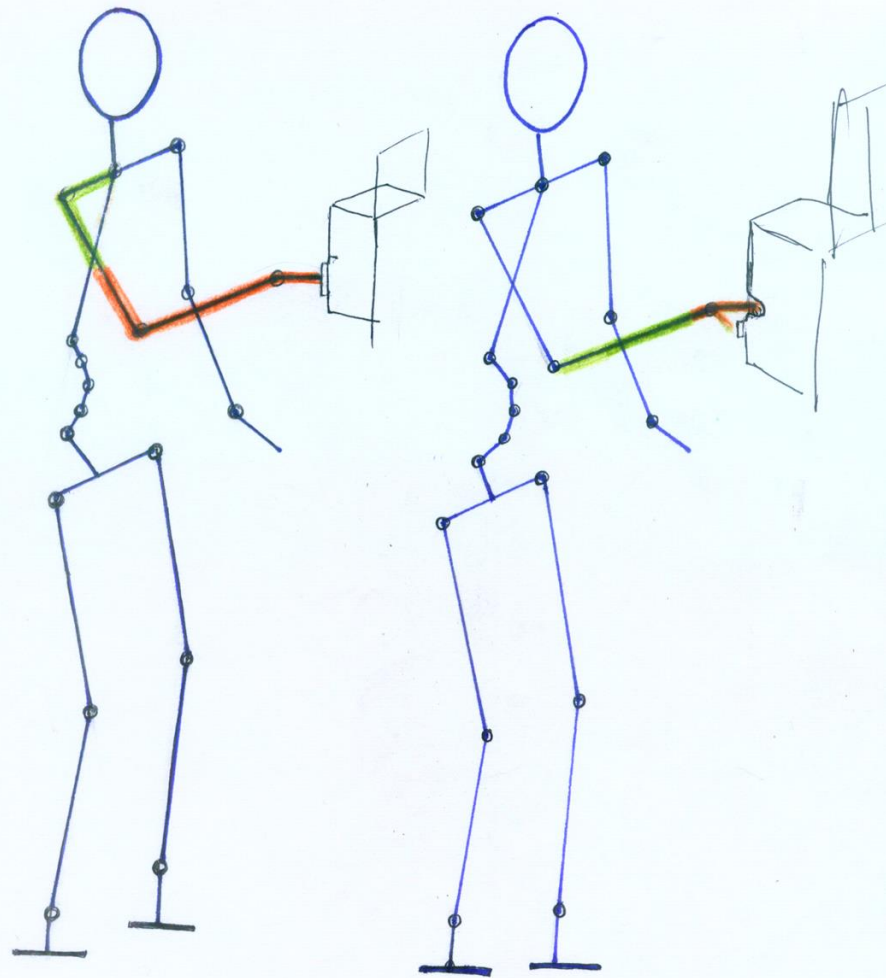






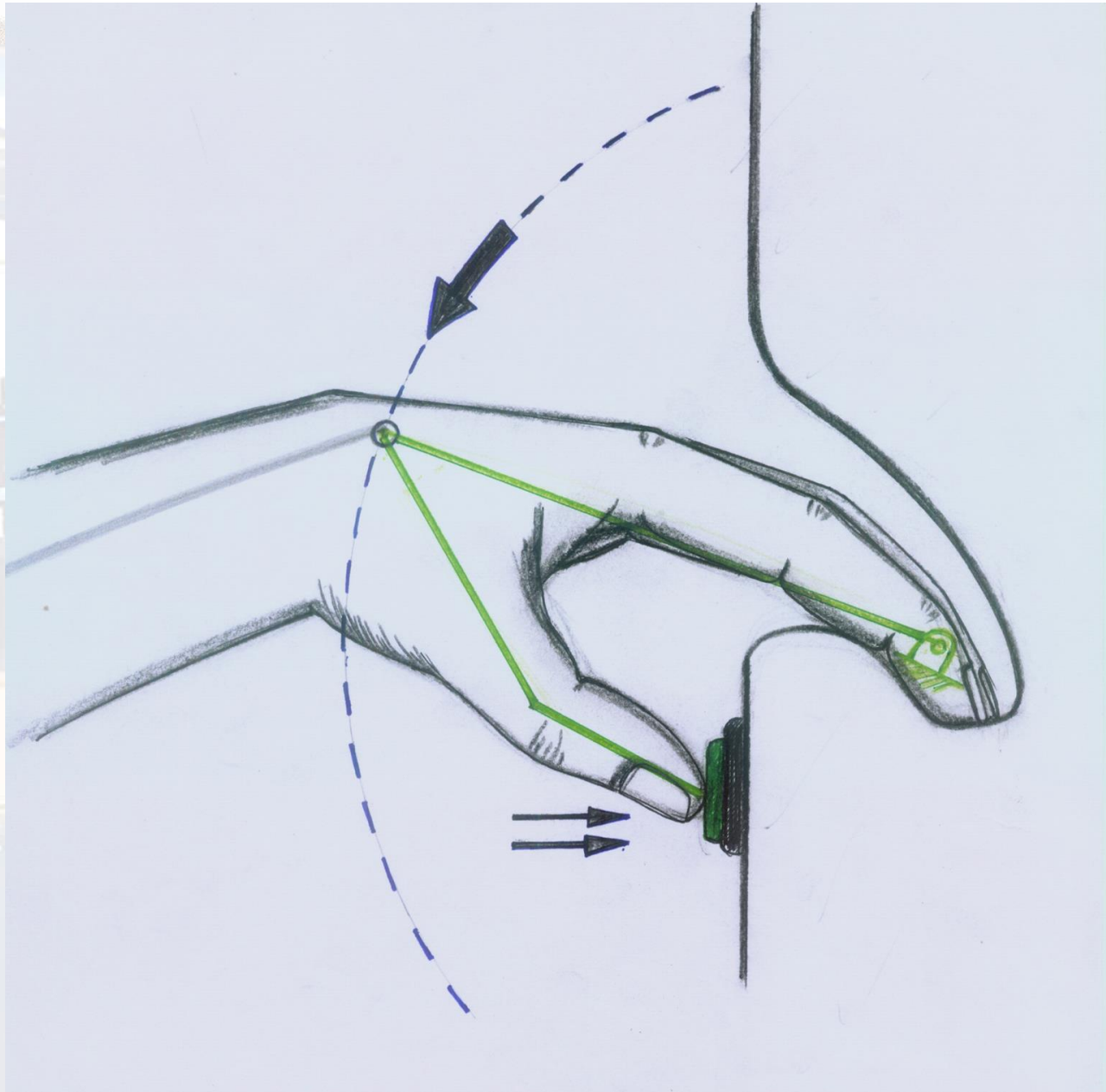






— TOTAL EXERTION.

— PARTIAL EXERTION.



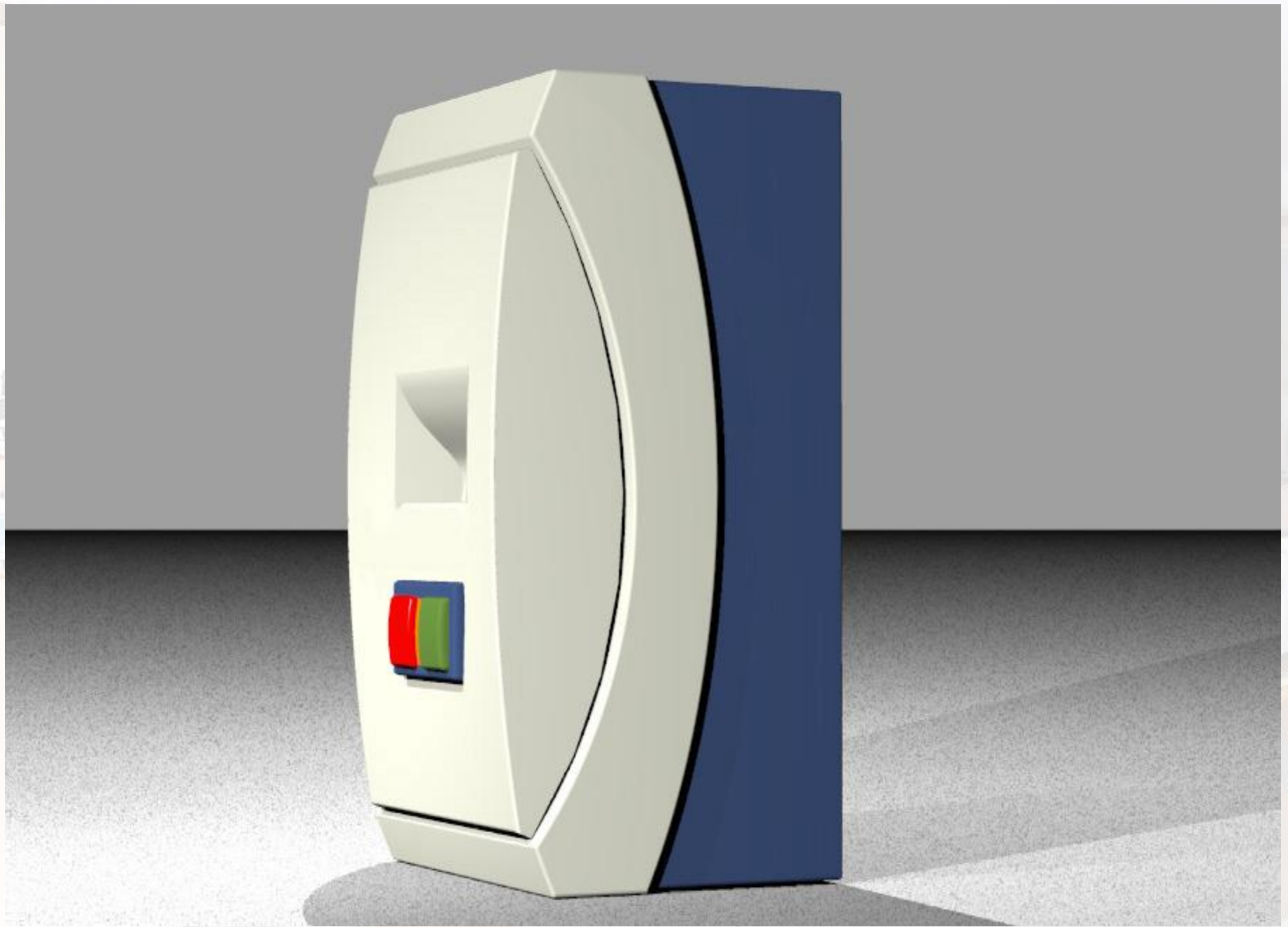


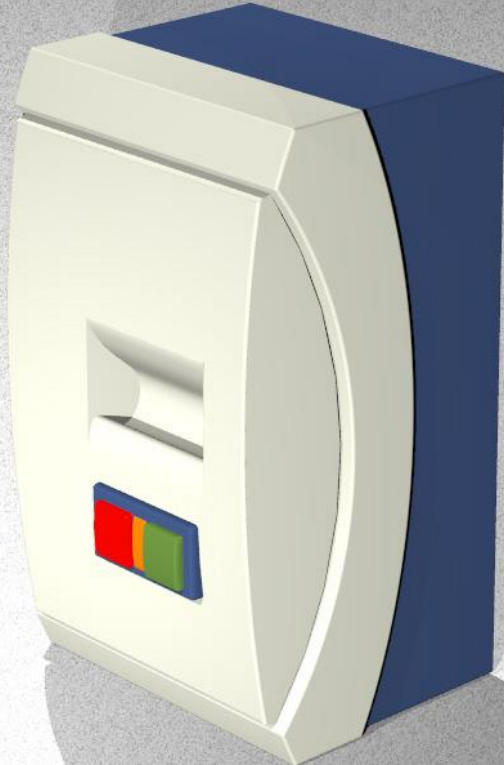
SWITCHGEAR
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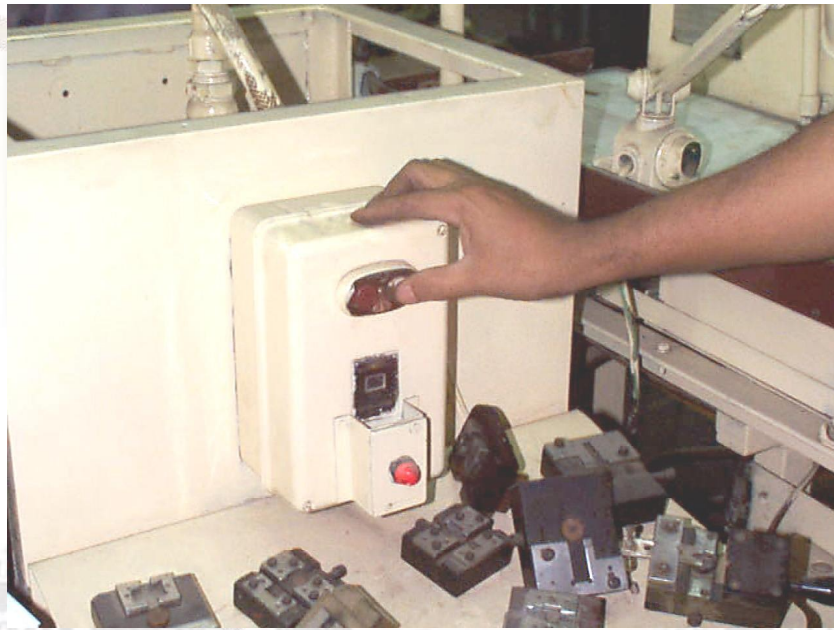
CONCEPTULISATION

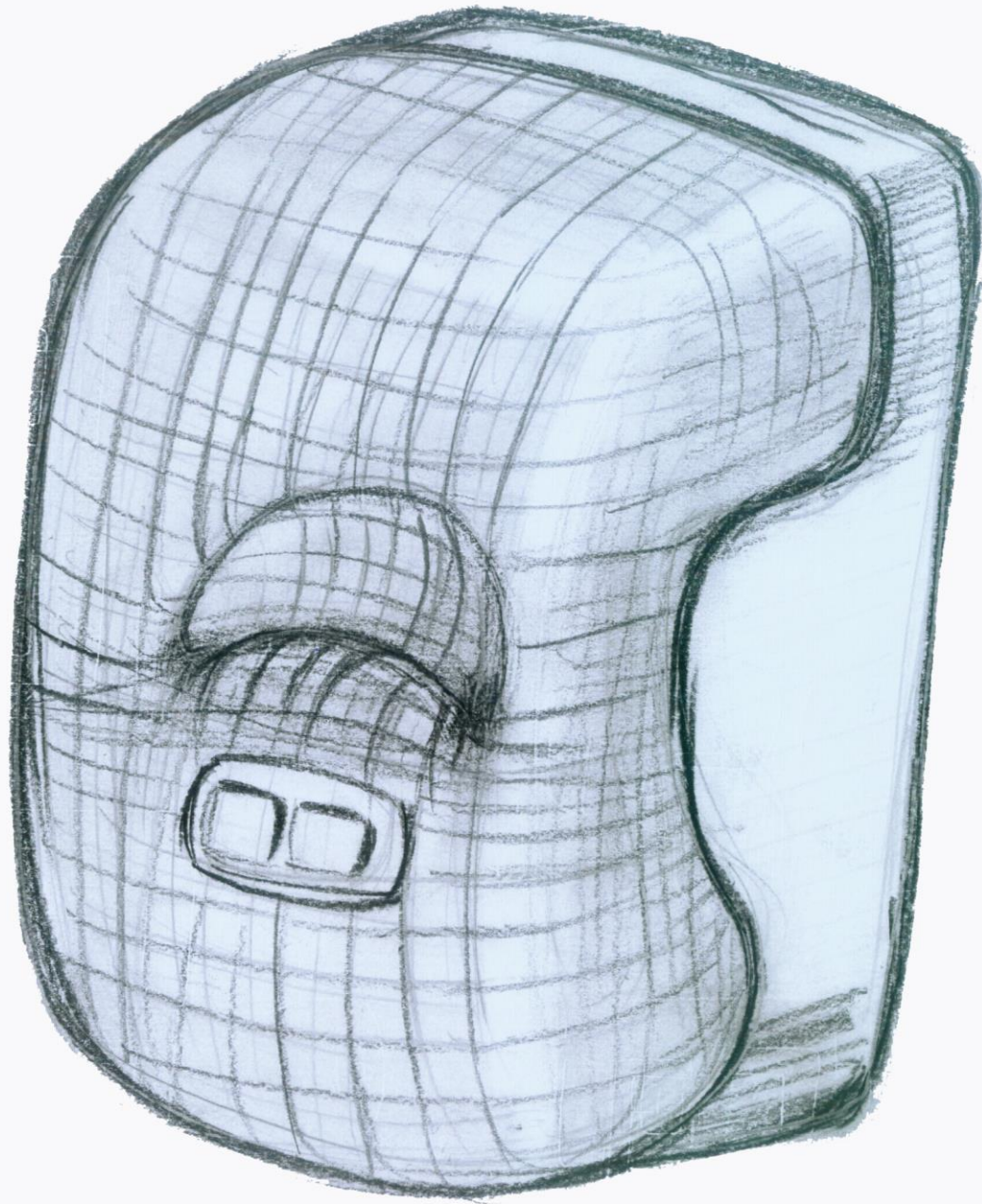
Stage-2 concepts with
ergonomic specification





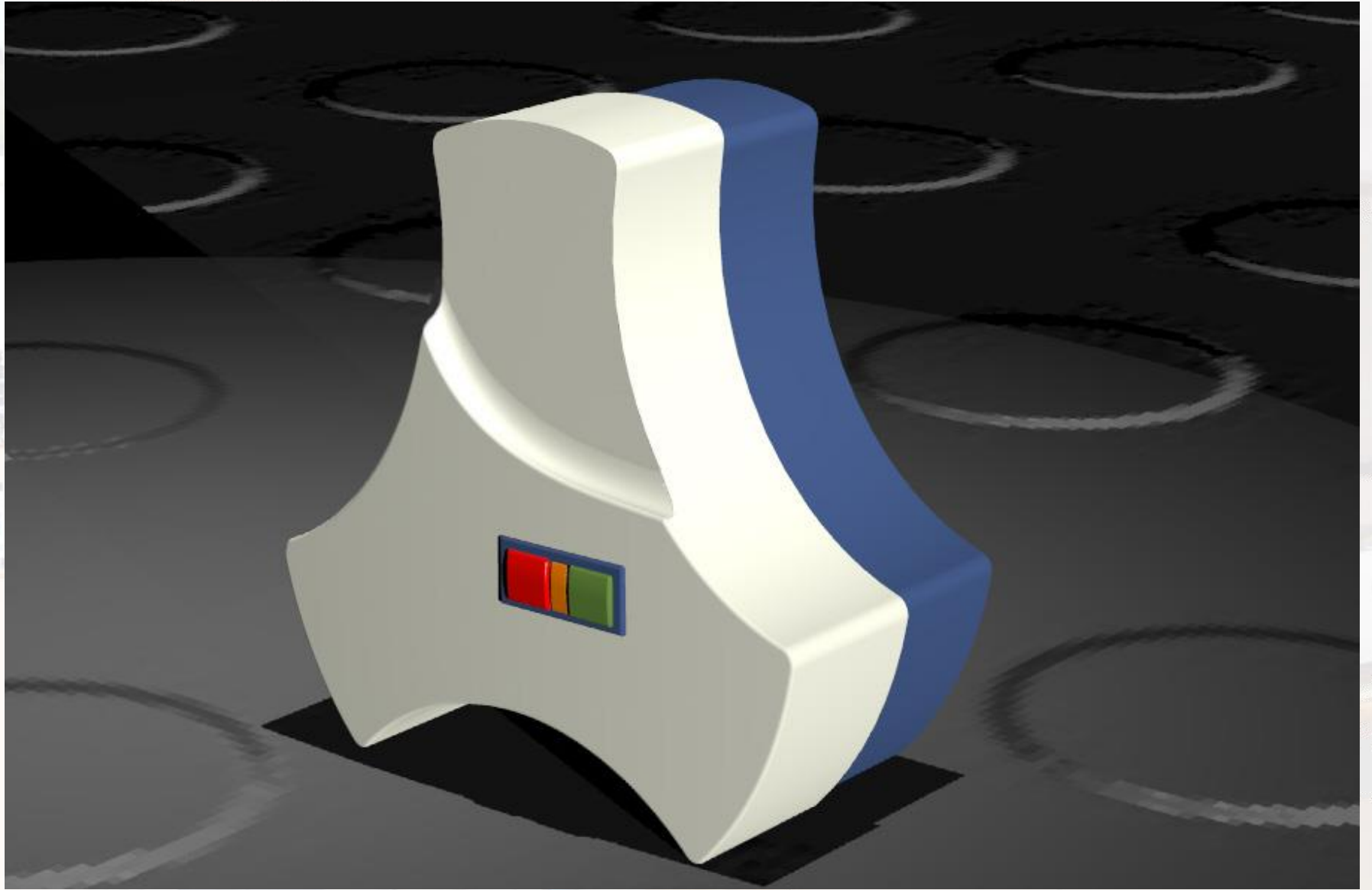


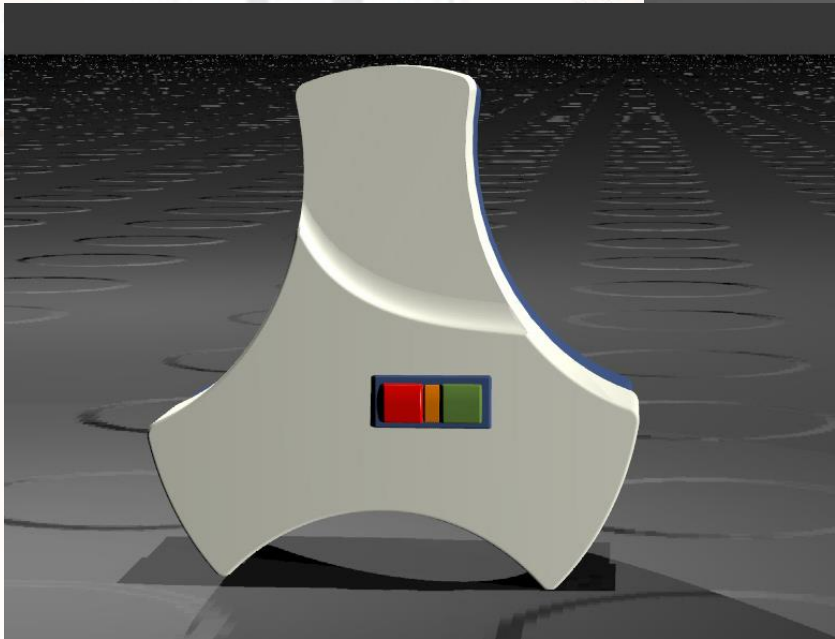












MACHINE



MAN

MACHINE

MAN

USER FRIENDLY



SWITCHGEAR
SAFE & SURE

CONSOLIDATION





DESIGNING ACCORDING TO THE USER PROFILE

CLASSIFICATION BASED ON FEATURES

- EX-ECONOMY VERSION
- DX-DELUX VERSION
- LX- LUXURY VERSION



EX

SWITCHGEAR
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ECONOMY OR BASIC VERSION

- POWER INDICATOR
- IP-56
- 25-30 MM CLEARANCE
- PAD LOCKING
- ERGONOMICALLY COMPATIBLE



DX

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DELUXE VERSION

- VOLTMETER
- AMMETER
- 3-PHASE INDIVIDUALLY RECOGNISED
- PAD LOCKING-CASTEL LOCK



LX

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LUXURY VERSION

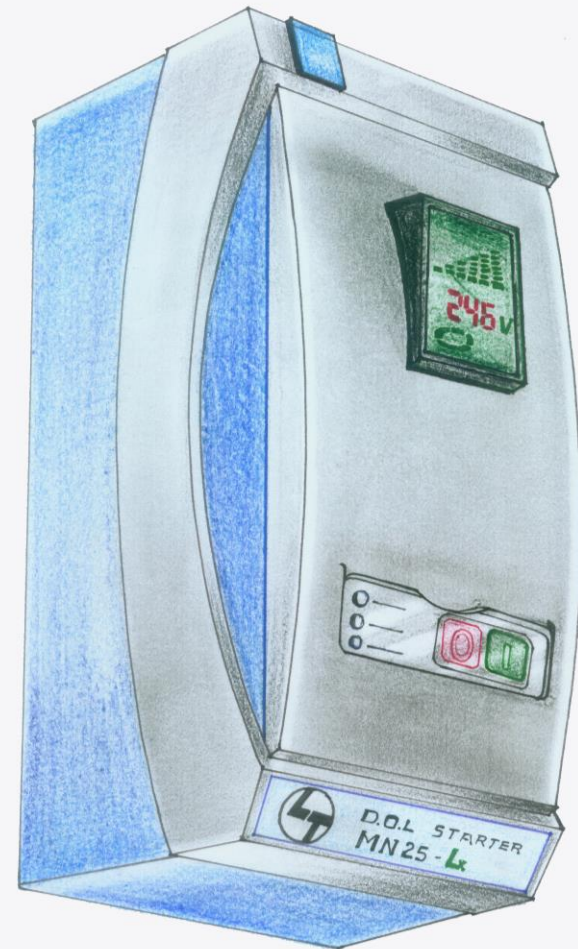
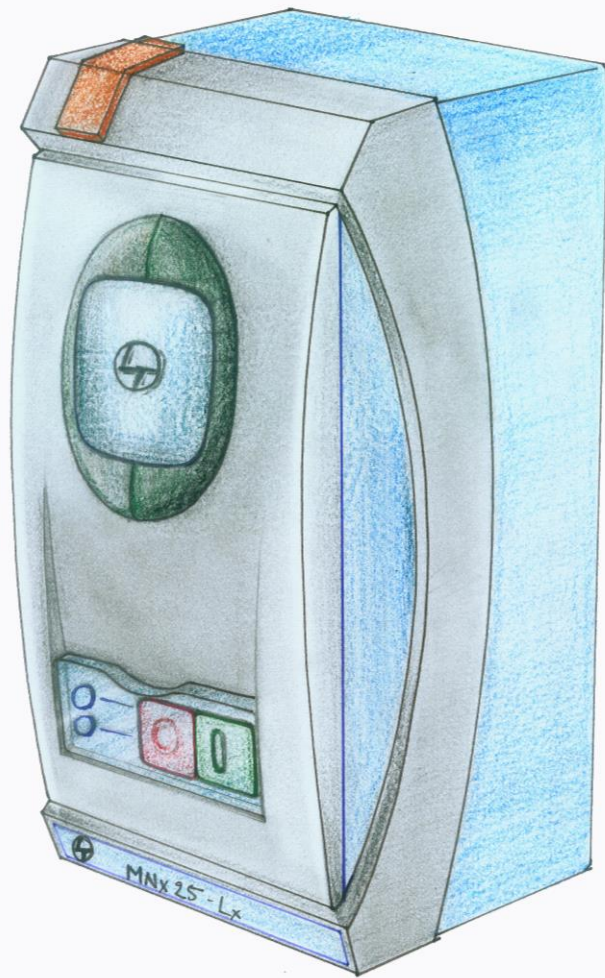
- AUTO RESTART
- AUTO CUT-OFF
- TOUCH-SCREEN START
- REMOTE
- FAULTY ALARM
- TIMER



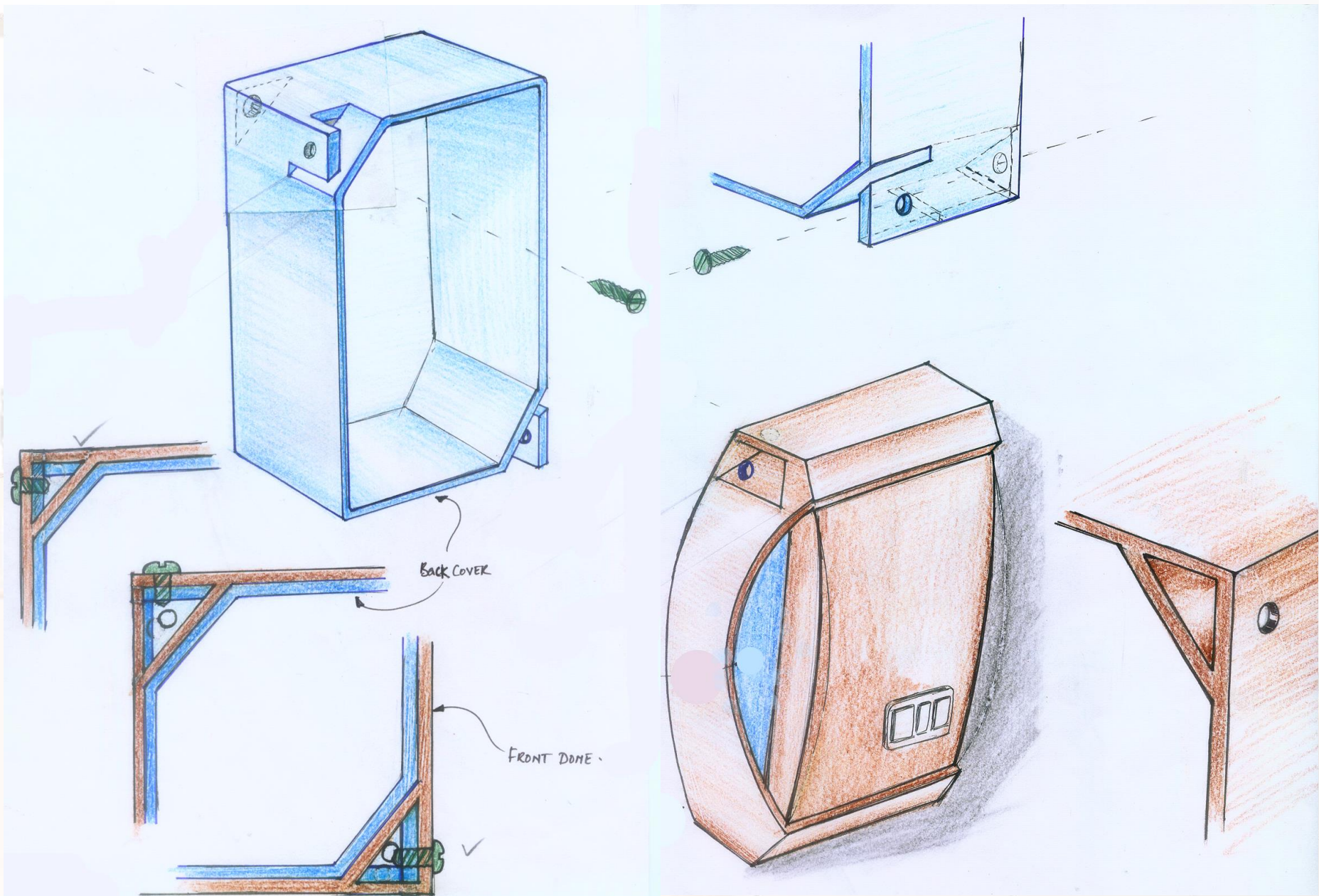
SWITCHGEAR
SAFE & SURE

WORKING DRAWINGS





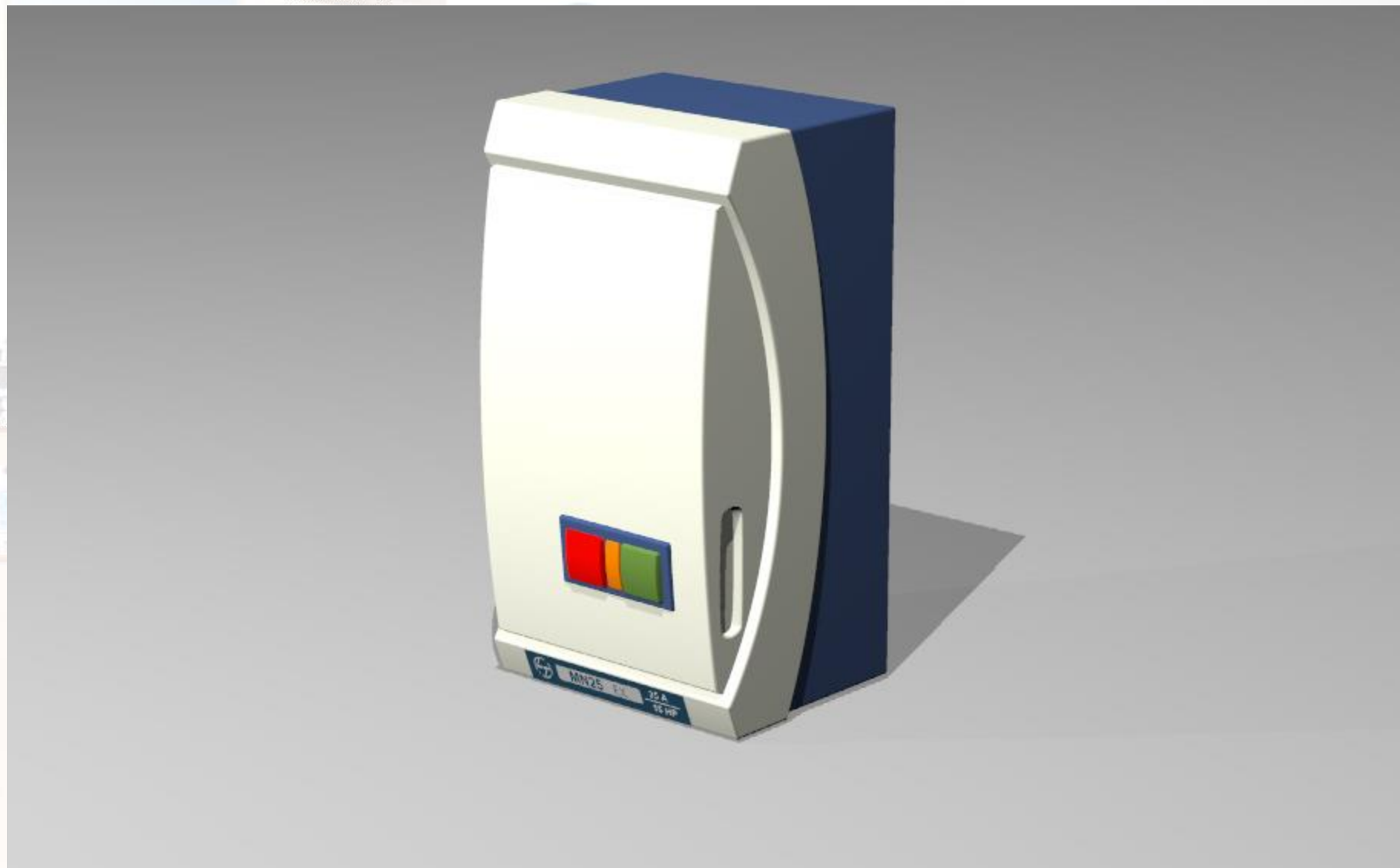
Concept sketches



Housing detailing

A photograph of a switchgear showroom. In the foreground, several large, dark-colored switchgear units are displayed on a wooden shelf. Behind them, more units are visible on higher shelves. On the wall, there is a large logo consisting of a circle with a stylized 'L' and 'T' inside, and the text 'SWITCHGEAR' and 'SAFE & SURE' below it. The text 'RENDERED IMAGES' is overlaid in the center of the image.

RENDERED IMAGES



ECONOMY



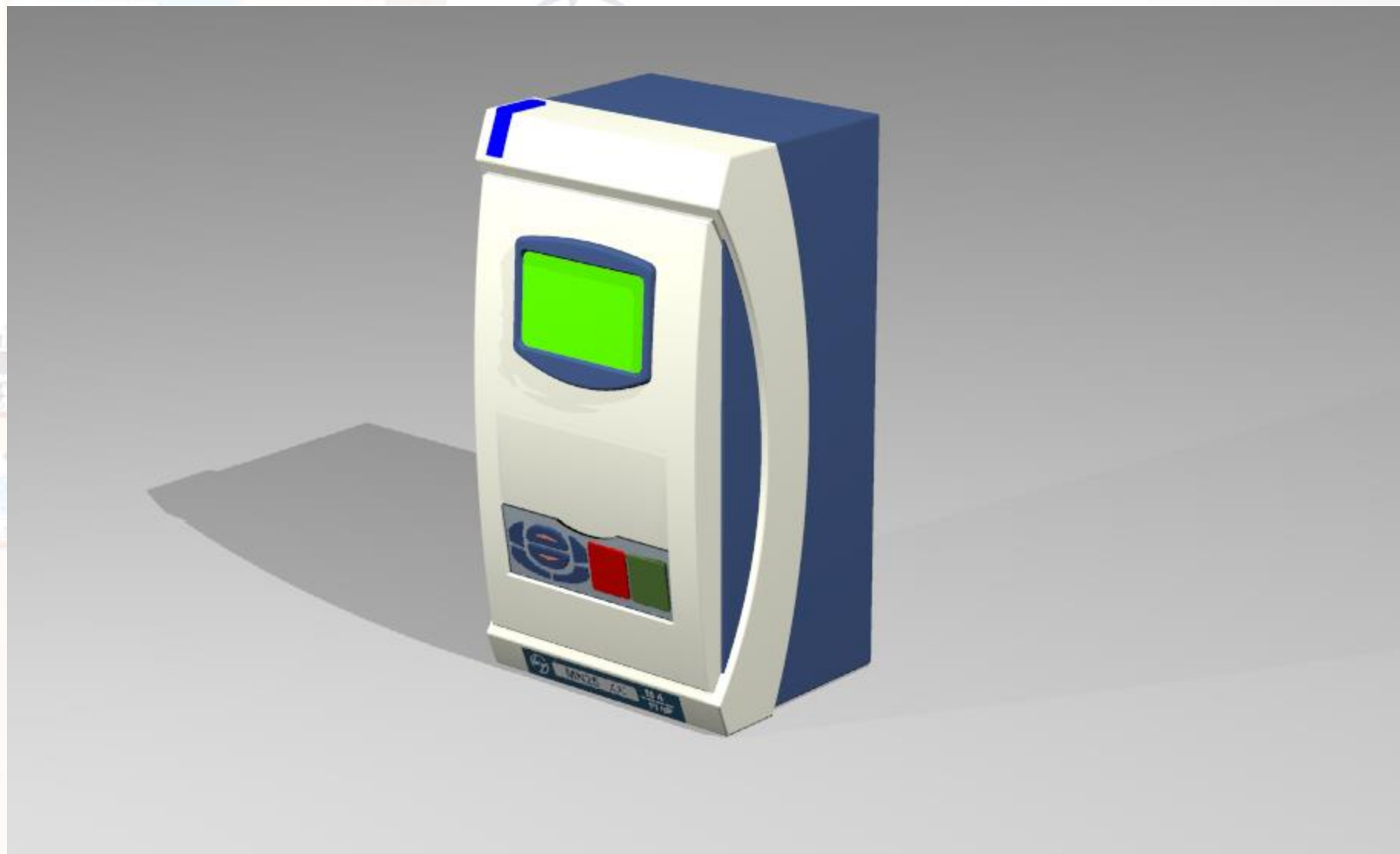


ECONOMY



DELUXE





LUXURY





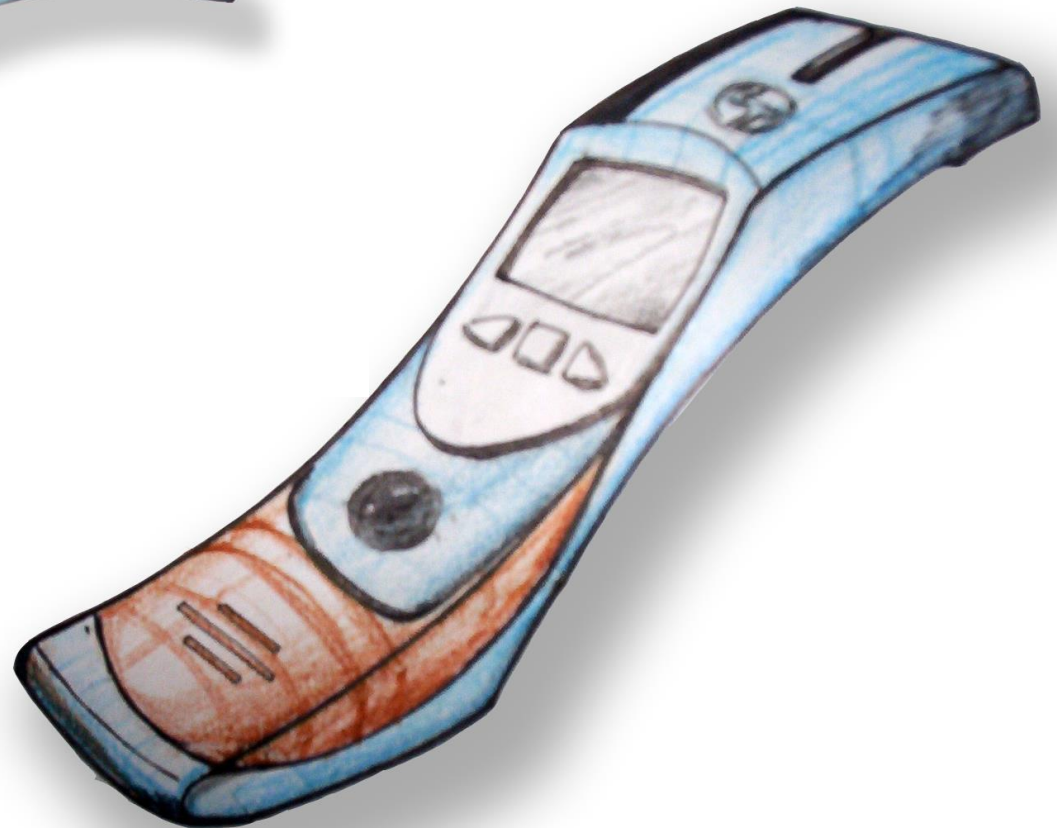
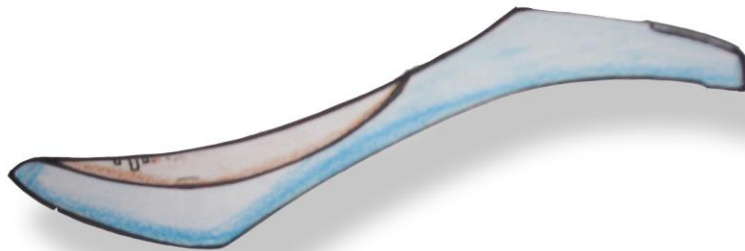


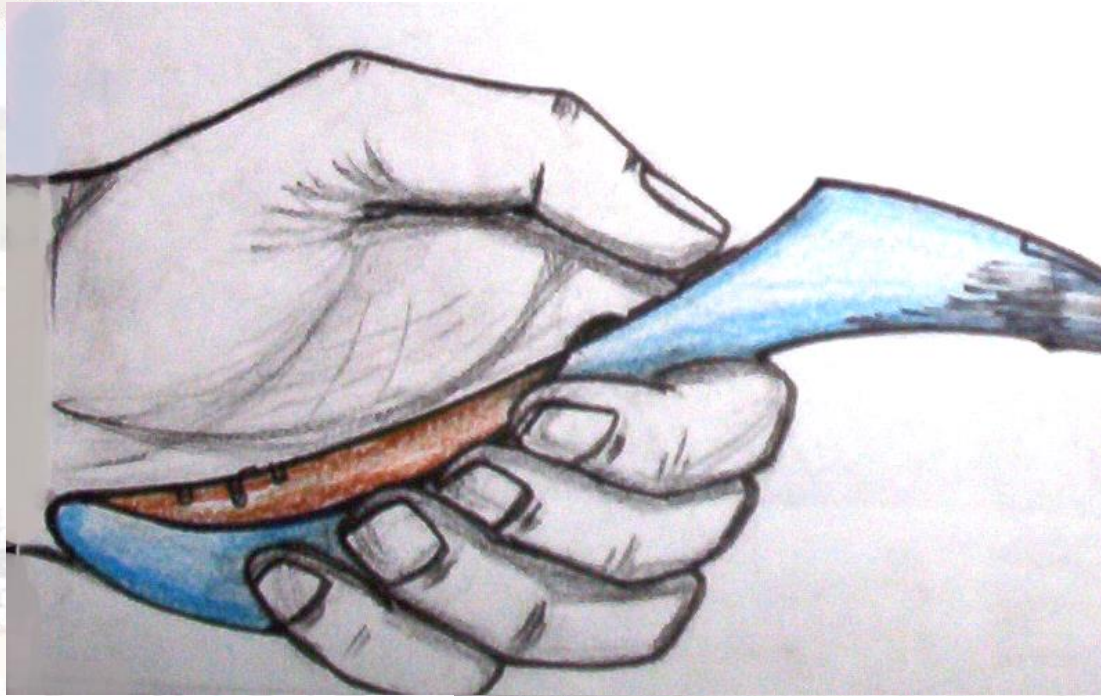
SWITCHGEAR
SAFE & SURE

REMOTE-CONCEPTS

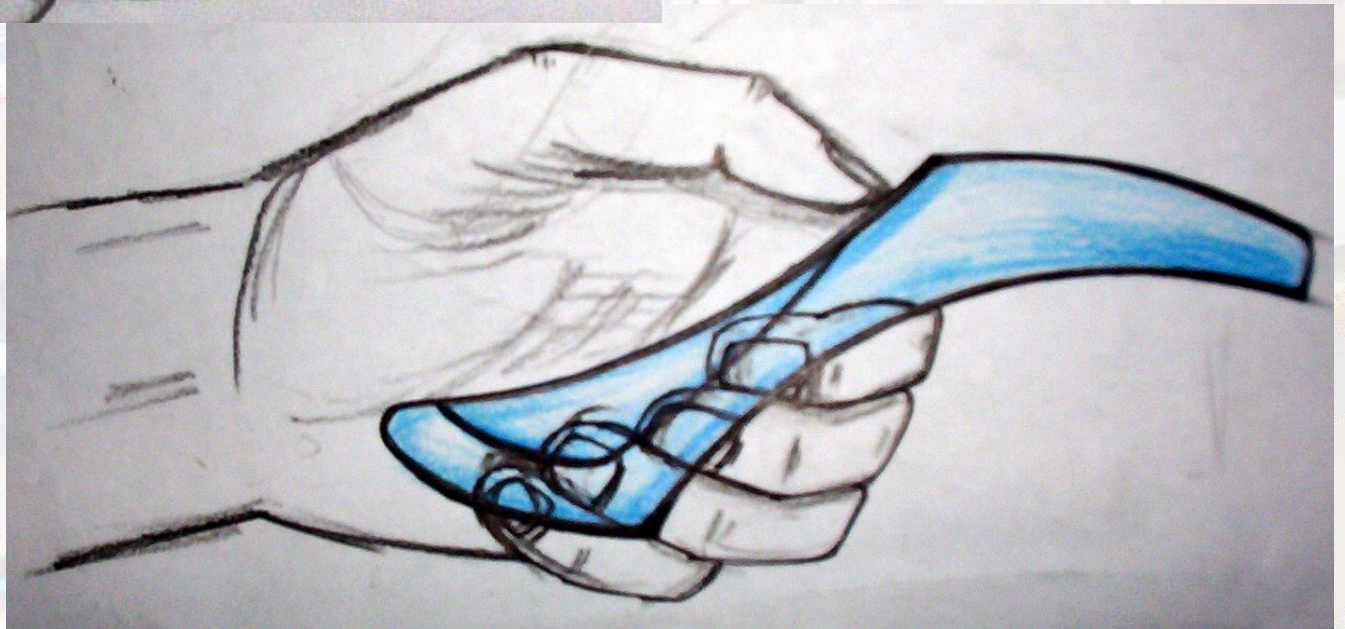


CONCEPT-1





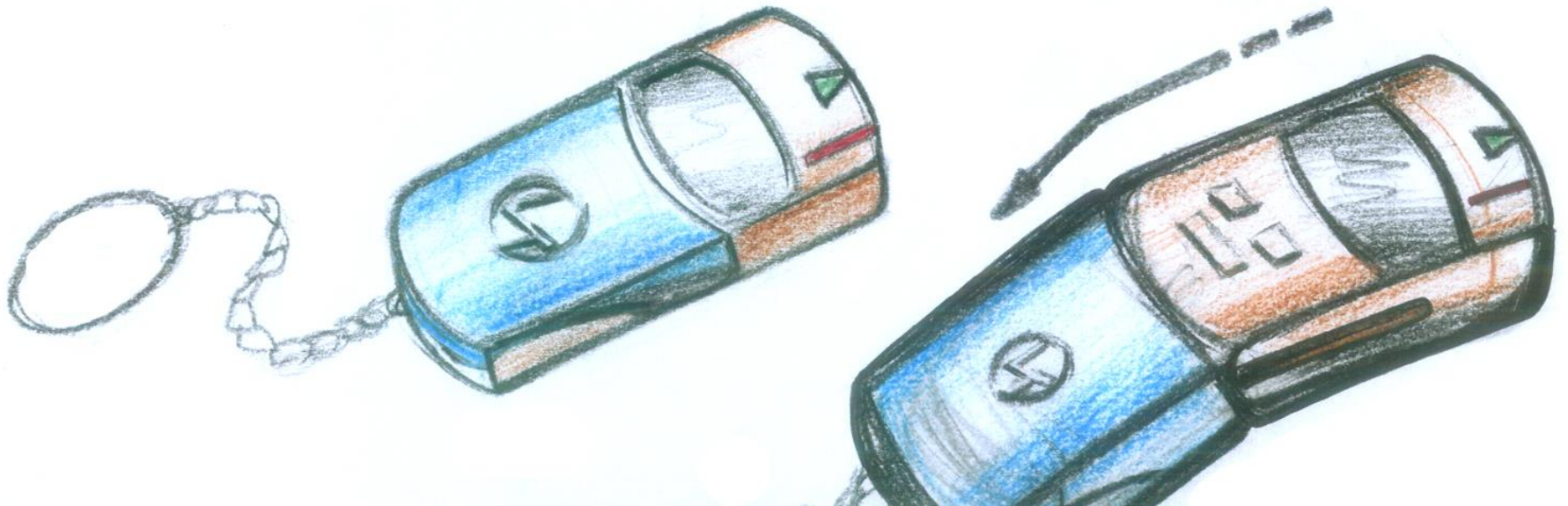
ERGONOMICALLY
COMPATIBLE



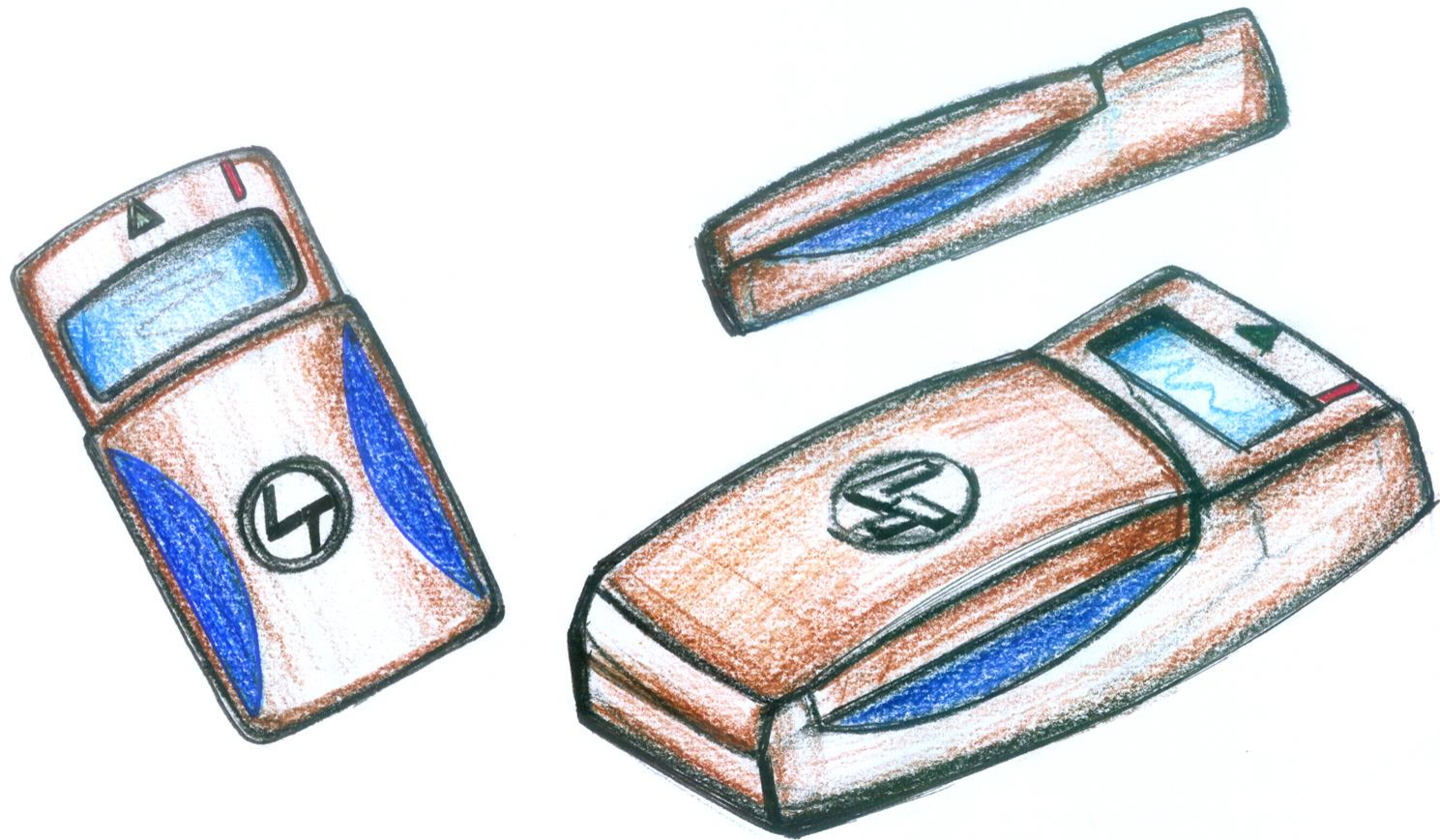
CONCEPT-2



SWITCHGEAR
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CONCEPT-3











SWITCHGEAR
SAFE & SURE

3D- MODEL





MINI 25 1-1 35 A 50 HP

UNIQUE FEATURES

- INJECTION MOULDED ENCLOSURE
- EASILY ASSEMBLING
- POWER INDICATION
- ERGO- FRIENDLY
- EQUIPED WITH IP-56
- COMPACT
- ELEGANCE APPEAL





CONCLUSION



SWITCHGEAR
SAFE & SURE

“Design is not always glamorousit is honest, it is appropriate and it always does the right thing “



The background image shows a room filled with electrical switchgear. On the wall, there is a logo consisting of a circle with a stylized 'L' and 'T' inside, and the word 'SWITCHGEAR' written in a sans-serif font. Below the logo, the text 'MY SINCERE THANKS TO' is displayed in a large, bold, blue font. In the foreground, several large, black and white electrical units are arranged on a wooden shelf. In the background, more units are visible on shelves, and a framed picture of a landscape is on the wall to the left.

MY SINCERE THANKS TO

MR. SUBHO SANYAL