



ARMOURSEAT

Mingyu Chen

ARMOURGEL

FUTURE MATERIAL

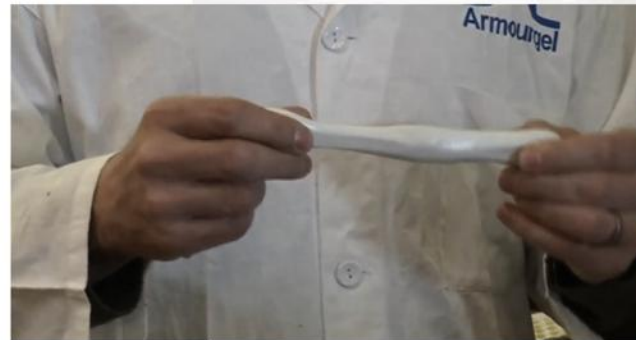
Armourgel is a novel polymer. The material works by detecting a change in strain when it hits another surface, absorbing the energy of the impact. It has already used in protection products to the extreme sports sector, including skiing, cycling and motorcycling

Armourgel delivers almost double the absorption of impact than other products on the market for the same thickness, so can be made much thinner. Unlike many materials including foams the auxetic geometry pulls material into the impact site rather than ripping it apart. When combined these elements work together to offer an unmatched level of impact protection.

https://youtu.be/i87OvQA_xOM



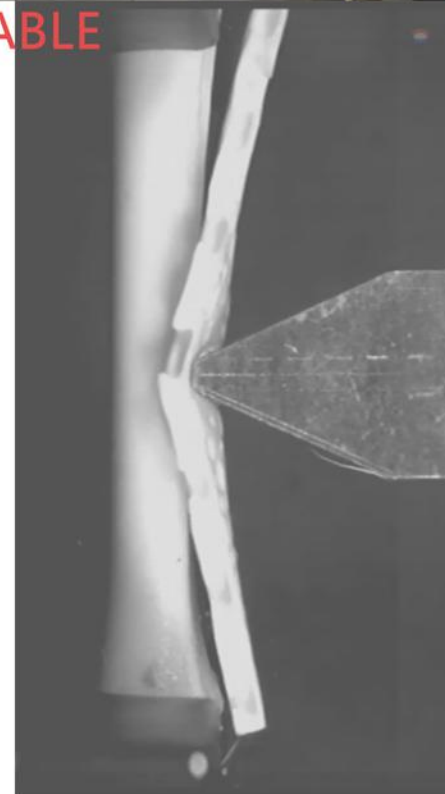
PROTECTIVE



MALLEABLE



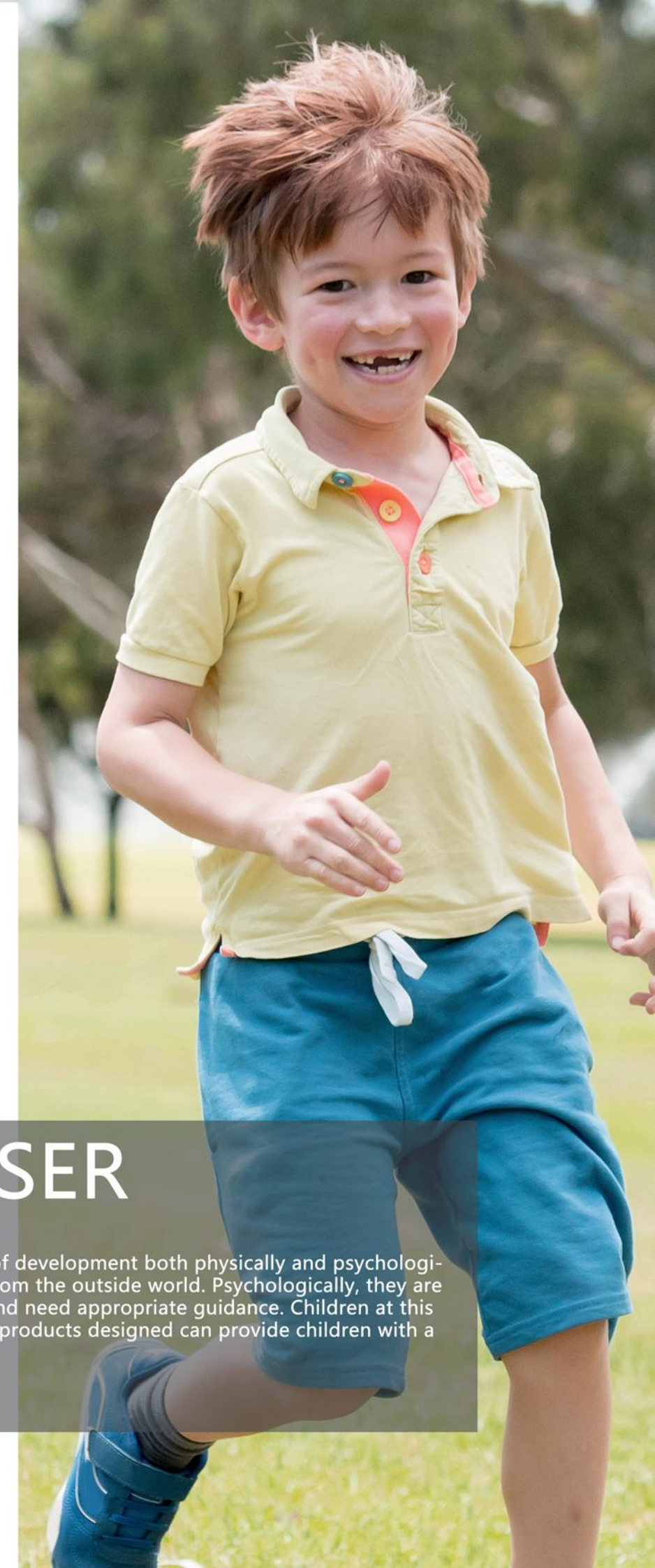
FLEXIBLE



RIGID

TARGET USER

3-9 years old children are in the stage of development both physically and psychologically. Physically, they need protection from the outside world. Psychologically, they are in the stage of curiosity and learning, and need appropriate guidance. Children at this stage are vulnerable. We hope that the products designed can provide children with a sense of safety and comfort.



USEAGE SCENARIOUS

OF ARMOURSEAT



Armorgel tec



All-round protection



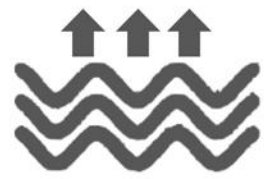
Adjustable



Sofa cabin



Skin friendly fabric



Breathable



DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, highlighting its key features and components. The main view shows the seat with its harness and base. A red arrow indicates that the seat can be rotated 360°. A red button on the base is labeled 'Push the button to rotate the seat'. The seat is shown with its 'Internal Protection Layer' and 'External Protection Layer Shell'. A red circle highlights the 'Armourgel Protection' on the side of the seat. The 'Seat Belt' is shown separately, along with the 'Button' and 'Sliding Rail' components. The diagram also includes three views of the seat: a top view, a side view, and a front view, with dimensions in millimeters (mm) provided for each. The dimensions are: Top view: 300mm (width), 320mm (depth), 450mm (width), 550mm (depth). Side view: 650mm (height). Front view: 450mm (width), 550mm (depth). The unit is specified as 'Unite: mm'.

The seat can be rotated 360°

Push the button to rotate the seat

Internal Protection Layer

External Protection Layer Shell

Armourgel Protection

Button

Sliding Rail

Seat Belt

THREE VIEWS

Unite: mm

DETAILS & EXPLODED VIEW

The seat can be rotated 360°

Internal Protection Layer

External Protection Layer Shell

Armorgel Protection

Button

Sliding Rail

Seat Belt

Push the button to rotate the seat

Unite: mm

THREE VIEWS

300

650

320

450

550

DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, highlighting its key features and components. The main view shows the seat with its harness and base. A red arrow indicates the rotation of the seat, with the text "The seat can be rotated 360°". A red button on the base is labeled "Button", and a red arrow points to it with the text "Push the button to rotate the seat". The seat is shown with its "Internal Protection Layer" and "External Protection Layer Shell". A red arrow points to the "Armourgel Protection" layer. The "Seat Belt" is shown separately, with its buckle and strap. The "Sliding Rail" is also shown, with a red arrow pointing to it. The diagram includes three views: a top view, a side view, and a front view. The dimensions are given in mm: 300, 320, 450, 550, and 650. The text "Unite: mm" is at the bottom right.

Internal Protection Layer

The seat can be rotated 360°

External Protection Layer Shell

Armourgel Protection

Button

Sliding Rail

Seat Belt

Push the button to rotate the seat

300

320

450

550

650

Unite: mm

THREE VIEWS

DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, highlighting its key features and components. The main view shows the seat with its harness and base. A red arrow indicates the rotation of the seat, with the text "The seat can be rotated 360°". A red button on the base is labeled "Button", and a red arrow points to it with the text "Push the button to rotate the seat". The seat is shown with its "Internal Protection Layer" and "External Protection Layer Shell". A red arrow points to the "Armourgel Protection" layer. The "Seat Belt" is shown separately, with its buckle and strap. The "Sliding Rail" is also shown, with a red arrow pointing to it. The diagram includes three views: a top view, a side view, and a front view. The dimensions are given in mm: 300, 320, 450, 550, and 650. The text "Unite: mm" is at the bottom right.

Internal Protection Layer

The seat can be rotated 360°

External Protection Layer Shell

Armourgel Protection

Button

Sliding Rail

Seat Belt

Push the button to rotate the seat

300

320

450

550

650

Unite: mm

THREE VIEWS

DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, showing its various components and their assembly relationships. The main components are labeled as follows:

- Internal Protection Layer**: A circular inset shows a close-up of the internal protection layer, which is a mesh-like structure.
- External Protection Layer Shell**: A circular inset shows a close-up of the external protection layer shell, which is a solid, textured material.
- Armourgel Protection**: A circular inset shows a close-up of the Armourgel protection, which is a soft, cushioned material.
- Button**: A red button is shown on the side of the seat, used to rotate the seat.
- Sliding Rail**: A red sliding rail is shown at the base of the seat, used for adjusting the seat's position.
- Seat Belt**: A black seat belt with a red buckle is shown at the bottom left.

The diagram also includes a circular inset showing the seat's rotation, with the text "The seat can be rotated 360°". A red arrow points to the button with the text "Push the button to rotate the seat".

THREE VIEWS

The diagram includes three views of the car seat:

- Top View**: Shows the seat's width and depth. Dimensions: 300 mm (width), 320 mm (depth).
- Side View**: Shows the seat's height and width. Dimensions: 650 mm (height), 300 mm (width).
- Front View**: Shows the seat's width and depth. Dimensions: 450 mm (width), 550 mm (depth).

Unite: mm

DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, highlighting its key features and components. The main view shows the seat with its harness and base. A red arrow indicates that the seat can be rotated 360°. A red button on the base is labeled 'Push the button to rotate the seat'. The seat is shown with its 'Internal Protection Layer' and 'External Protection Layer Shell'. A red circle highlights the 'Armourgel Protection' on the side of the seat. The 'Seat Belt' is shown separately, along with the 'Button' and 'Sliding Rail' components. The diagram also includes three views of the seat: a top view, a side view, and a front view, with dimensions in mm. The dimensions are: Top view: 300mm (width), 320mm (depth), 450mm (width), 550mm (depth). Side view: 650mm (height). Front view: 450mm (width), 550mm (depth). The unit is mm.

The seat can be rotated 360°

Push the button to rotate the seat

Internal Protection Layer

External Protection Layer Shell

Armourgel Protection

Button

Sliding Rail

Seat Belt

THREE VIEWS

Unite: mm

DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, showing its various components and their assembly relationships. The main components are labeled as follows:

- Internal Protection Layer**: A layer of protective material inside the seat shell.
- External Protection Layer Shell**: The outer protective shell of the seat.
- Armourgel Protection**: A layer of protective material (Armourgel) inside the seat shell.
- Button**: A red button used to rotate the seat.
- Sliding Rail**: The base rail of the seat.
- Seat Belt**: The safety harness system.

Additional features and dimensions are shown:

- Rotation**: The seat can be rotated 360°.
- Dimensions**: The seat has a width of 300mm, a height of 650mm, and a base width of 320mm. The base rail has a width of 450mm and a height of 550mm.
- Unit: mm**

THREE VIEWS

DETAILS & EXPLODED VIEW

The diagram illustrates the exploded view of a child car seat, showing its various components and their assembly relationships. The main components are labeled as follows:

- Internal Protection Layer**: A circular inset shows a close-up of the internal protection layer, which is a mesh-like structure.
- External Protection Layer Shell**: A circular inset shows a close-up of the external protection layer shell, which is a textured, protective layer.
- Armourgel Protection**: A circular inset shows a close-up of the Armourgel protection, which is a soft, cushioned layer.
- Button**: A red button is shown on the side of the seat, used to rotate the seat.
- Sliding Rail**: A red sliding rail is shown on the base of the seat, used for adjusting the seat's position.
- Seat Belt**: A black seat belt with a red buckle is shown, used for securing the child.

The diagram also includes a circular inset showing the seat's rotation, with the text "The seat can be rotated 360°".

Dimensions (Unit: mm) are provided for the seat's base and backrest:

- Base width: 300 mm
- Base depth: 320 mm
- Base height: 650 mm
- Backrest width: 450 mm
- Backrest height: 550 mm

THREE VIEWS

DETAILS & EXPLODED VIEW

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- Internal Protection Layer**: A layer of protective material inside the seat shell.
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THREE VIEWS

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The seat can be rotated 360°

Push the button to rotate the seat

Internal Protection Layer

External Protection Layer Shell

Armourgel Protection

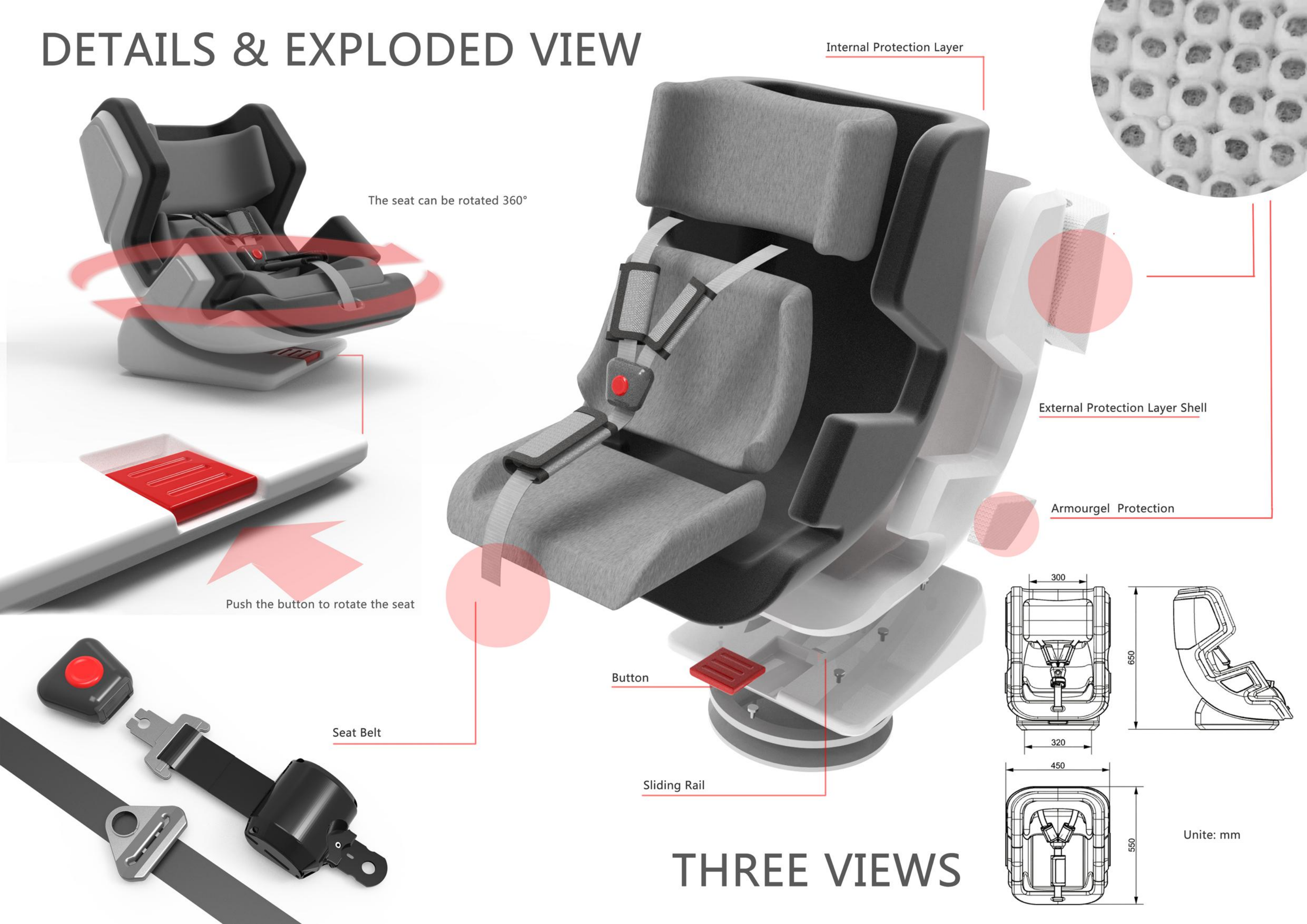
Button

Sliding Rail

Seat Belt

THREE VIEWS

Unite: mm



DETAILS & EXPLODED VIEW

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The seat can be rotated 360°

Push the button to rotate the seat

Internal Protection Layer

External Protection Layer Shell

Armourgel Protection

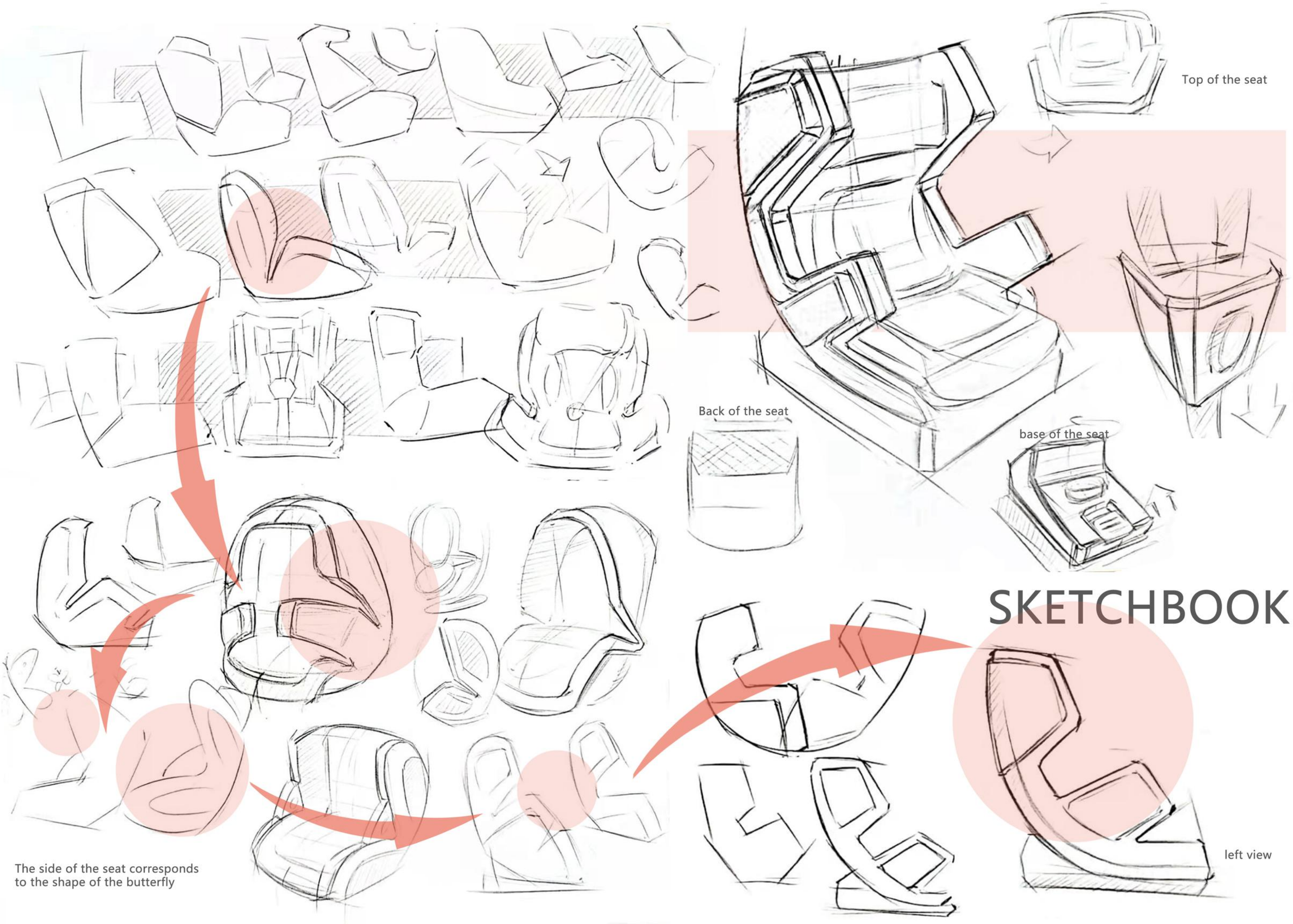
Button

Sliding Rail

Seat Belt

THREE VIEWS

Unite: mm



Top of the seat

Back of the seat

base of the seat

SKETCHBOOK

left view

The side of the seat corresponds to the shape of the butterfly