

biKit

Adapted bike accessories for
children with CP

Product report

Ma4 ID 2
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AD:MT
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ABSTRACT

This report is part of my Master's Thesis in Industrial Design, in Aalborg University. Its purpose is presenting the final concept achieved at the end of the design process.

It deals with designing a bike solution for children with mild to moderate levels of Cerebral Palsy. During research it was found out that the best choice was not designing the whole bike, but a series of accesories to be fit onto regular bikes.

Through the development phase, several tools like sketching, model making and user testing were used to reach a final concept for a bike saddle and handlebar. Both were ergonomically designed to meet the needs of children with CP.

This concept brings value by offering a more affordable and accesible solution to having an adapted bike.

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WHY HAVE ADAPTED ACCESORIES?



Kids with Cerebral Palsy have some special needs. CP is a disorder that affects the motor function of the body. That means that the body behaves a bit differently from the other children's, so sometimes is better for them to use things that adapt to how their body moves.

They can still do common daily activities, but they might need some special equipment to do them.

What about playing? They are still kids, and they need to play. Bicycles are one of their favourite toys, so they deserve the possibility of having one.

THE biKit ACCESORIES

BIKIT is a line of accesories adapted to children with CP, which can be bought separately and fit onto regular bikes. It is an affordable and customizable way of getting access to a bike.

These products are aimed to children with mild or moderate cases of CP, but it should actually be the parents or the child's physician who evaluate whether they are appropriate or not for him or her.

BIKIT accesories have been developed with the particular needs of these children in mind. They are ergonomic and comfortable, with special features to ensure a safe ride.

They all have standard connexions, so they fit to most bikes. That is why they only require the same tools as any other bike part to be installed.

BIKIT tries to facilitate that children with CP can also enjoy the feeling of riding and playing with a bike like any other kid, allowing them to have more fun and mobility freedom.



HOW DOES IT WORK?

1



Find a bike

Buy a new one, a second hand one, rent it, or get it from your neighbour

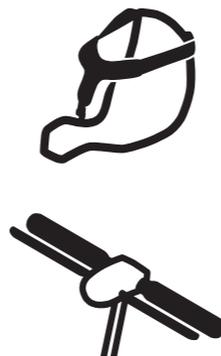
2



Go to our online shop

where you will find our online catalog of the products available

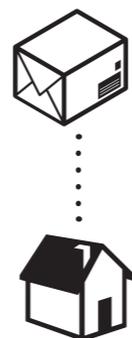
3



Choose the accessories

you need
If you are in doubt we recommend you consult it with your kid's physician

4



We'll mail the products

to your home
Available all over Europe

5



Mount the new parts on the bike

They don't need any special tools



Enjoy!



WHAT ARE YOUR OPTIONS?

We have a variety of sizes and colours you can choose from, so you can match it with your bike

SADDLE

670 DKK

You can get it in 2 different sizes:
5-7 years
8-11 years

4 different colours available

See it in detail in pages 10-15



HANDLEBAR

1180 DKK

One size fits ages
5-11 years

4 different colours available

See it in detail in pages 16-21





SADDLE

FEATURES



Straps for a safer ride

The front shape prevents from sliding forward and the legs from closing



The back rest helps keeping a better upright posture



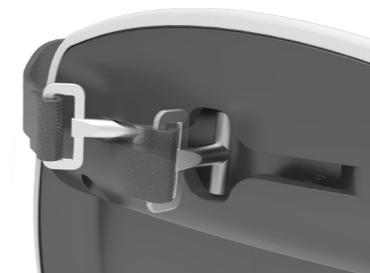
Wide and padded seat for a more comfortable ride



Standard rails that fit most bikes

Easy and quick way to fasten the straps

Introduce it and slide it to the end of the slot until you hear a click



Introduce it



Turn it 90 degrees

Pull up until you hear a click



MATERIALS

The nylon straps can be adjusted in length for a better fit

The locks are made of aluminium

The cover is a leather like material, with an anti-slip coating so it is harder to slide off the saddle



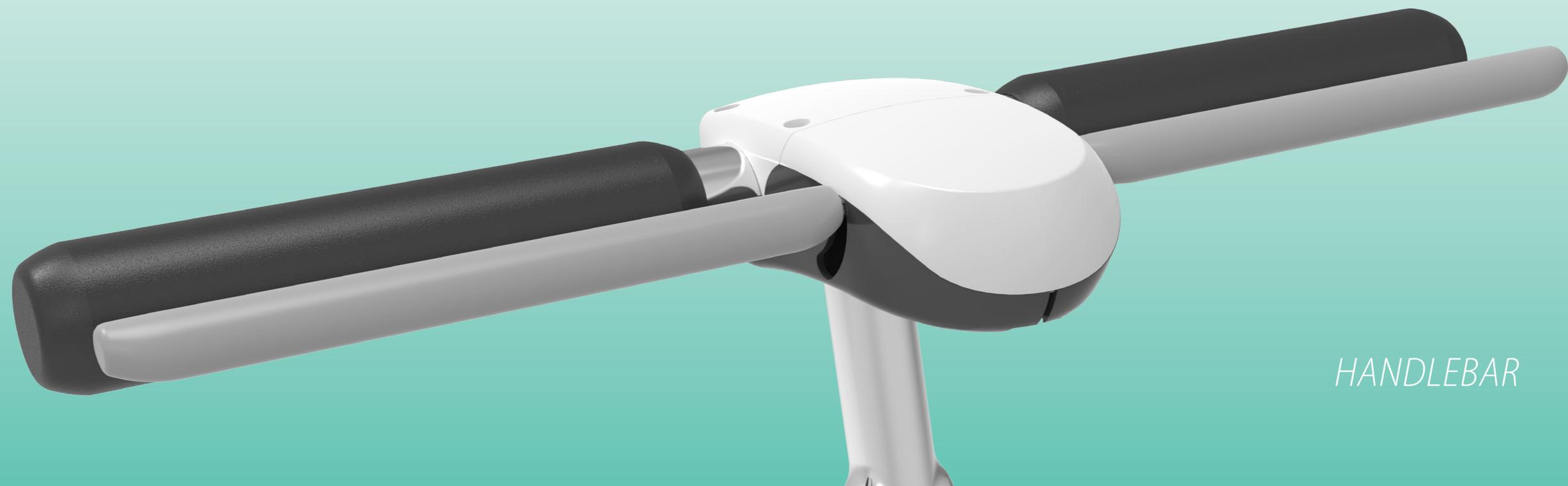
The front of the strap is made of neoprene, to make it flexible and comfortable

The seat is covered by a layer of foam, to make it more comfortable

The structure is made of nylon plastic, which is strong but flexible

The rails are made of durable steel





HANDLEBAR

FEATURES



Extra long grip, to have more placing options for the hand

By pressing the brake bar with both hands, the effort made by each hand gets reduced by half



Use this bracelet-like strap if some extra help is needed to hold the hand on the bar



Easy to attach to the handlebar



Adjust it to the position where it feels more comfortable



Push down the bar to brake

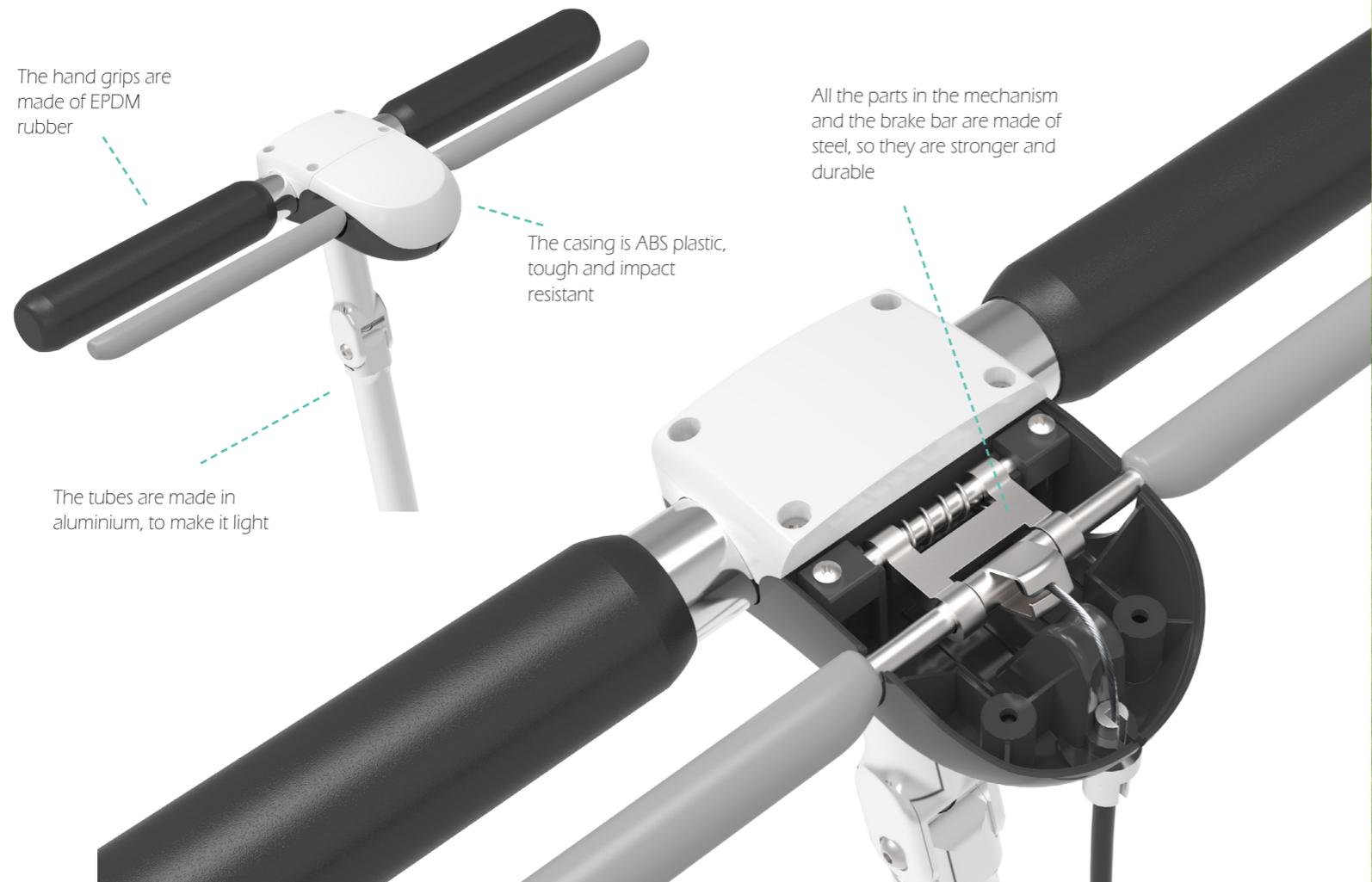


Adjust the angle so the arms reach easily



Extra height, to ride in a more comfortable upright position

MATERIALS





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