



Design and Creativity

New Designs: Scooter

Narrator

Stuart Robinson's idea is a cross between a bike and a scooter.

Stuart Robinson

My scooter design is encouraging people to get out of their cars, to use alternative transport really. It's something that I didn't think I'd be doing. I love cars. I love driving about, but in today's world so many environmental issues, it's something you can't help consider when you're designing anything really nowadays. It's X shape and you scoot it, so scootex came to me in a flash sort of thing. It's, it seems to describe it fairly well. It's not a bike and it's not a scooter it, it's something in between.

Narrator

Stuart's way of developing his idea was to build a whole series of prototypes.

Stuart Robinson

I think in all I've built eight prototypes now. The original one was basically to test, test the principle to see whether the, my idea would actually work. There's plenty of ways I could have tried that but for me because I can weld and I had the equipment, it was just easier to make it and see if it worked. It proved it worked, but it proved I'd got a long way to go with the geometry of the thing.

James Dyson

Just start building a prototype of almost anything, and in the process you'll start learning and you shouldn't be dismayed by failures, 'cos you learn from failures. When something goes wrong, you learn something. If something works, you don't learn anything.

Stuart Robinson

Some of these prototypes don't exist any more because I've then modified them so much they've become another prototype. The cross bar appeared about the third prototype which was when I first started exploring the folding mechanism. Because although the X shaped frame worked well when rigid, it needed some kind of support to keep the geometry where it was when it was being ridden. So the cross bar idea enabled it to fold easily still without needing to undo any nuts and bolts

The difficult part of getting this frame to adjust in height and to fold was this, this central pivot. The, the original prototype had the pivot running straight through here which allowed this to fold and it worked really well but it was then that I incorporated the adult frame adjustment, the height in there, that I realised that this part of this tube needed to pass straight through the pivot. So I had to work out a way of putting the thing together without having a pivot straight through the middle, which I managed to do by incorporating pivots on the backs of these panels here. So now it is height adjustable and yet still folds.

Narrator

Stuart has tested his design for it's mass market appeal.

Sophie Robinson

This scootex that my Dad made is a cross between a bike and a scooter. At the beginning I thought it was very, very bad 'cos I hadn't had a go on it. 'Cos it was about that big you see when it was first built. And I kept calling it a freak mobile. And now Daddy's made me one, and now I think it's really cool.

Jean Watson

I think it's marvellous. It's ideal cos it rests my legs, they haven't been all that good lately, so I could trundle along sort of sitting down. But it's just got to get used to the steering and using your body to steer it. My doctor told me to use an exercise bike but you see this, I can be out in the open and seeing other things, other people, I think it's great.

Stuart Robinson

If you are the judge of your own design, if you're not working for a client, I think it can compromise the design sometimes. You get to a certain stage and think "I can't really go any further with that - and that'll do'. It is quite special to me really this project, I've grown to really love it.