"IF LEGO CAN TAKE ME DOWN A PATH OF SUCCESS, IMAGINE WHAT STEAM COULD DO FOR YOU!"

DUE TO A GENETIC CONDITION, **DAVID AGUILAR AMPHOUX** WAS BORN WITHOUT A FOREARM, BUT HIS IMPULSE TO BUILD A PROSTHETIC ARM WAS BORN FROM HIS BOYHOOD PASSION FOR LEGO AND REJECTION IN LOVE. WITH A NEW DOCUMENTARY ABOUT TO BE RELEASED AND TONS OF HIGH-PROFILE SPEAKING EVENTS UNDER HIS BELT, DAVID TELLS US HOW HIS DETERMINATION AND LOVING FAMILY HAVE SET HIM ON A PATH TO HELPING OTHERS THROUGH TECHNOLOGY AND BIOENGINEERING

DAVID AGUILAR AMPHOUX

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To highlight his story about disability, determination and triumph, David is creating a brand called Hand Solo, which will be used to produce T-shirts, mugs, sweatshirts, hats and more. He is hoping that money from the proceeds will go to the Andorran Federation of Associations for Persons with Disabilities. Join David's disability awareness campaign and reach out to him and others via social media.

@handsolo99

Hand Solo

David AGUILAR AMPHOUX
aka Hand Solo

@DavidhandSolo

www.mrhandsolo.com

YOU WERE ONLY 9 YEARS OLD WHEN YOU CAME UP WITH THE IDEA OF BUILDING A PROSTHETIC ARM OUT OF LEGO. HOW DID YOU COME UP WITH THIS IDEA AT SUCH YOUNG AGE?

When I was younger, I was always more interested in disassembling the original LEGO toys and designing my own creations. So, at 9 years old, I had reached a point where I thought that the most exciting project ever would be to make a functional arm, by combining normal LEGO bricks with LEGO Bionicle parts. In the beginning, I operated an internal wire with my stump, which enabled me to open and close the legs of Bionicle robots, like a pair of tweezers.

YOU THEN BUILT YOUR FIRST OPERATIONAL ROBOTIC ARM WHEN YOU WERE 18. WHAT CHALLENGES DID YOU HAVE TO OVERCOME TO BUILD THIS ARM?

I have to admit that the reason I built the MK-1 [David's first prosthesis] was because I went through a major disappointment in my life. I was rejected by a girl for being disabled and that marked me a lot. I locked myself in my room for a week. One day, when I came home from school and locked myself in my room, I stared at a LEGO helicopter I had on my shelf. It was then I decided to disassemble it and create the project of my life.

The main challenge in building the arm was adapting it to my ergonomics. I had to use the little movement I have in my stump to give movement to the prosthesis and adapt it to the shape of my arm. Now, I can pick up objects, do push-ups and other endless tasks that I wouldn't be able to do without it.

IS IT TRUE THAT IRON MAN IS ONE OF YOUR FAVOURITE SUPERHEROES? ARE YOU HOPING TO BUILD AN IRON MAN-TYPE SUIT ONE DAY?

I love fantasy films and I have always liked Avengers. As a child, my favourite film was The Iron Giant; when I was older, it was Iron Man, without a doubt. I have to say that one of the greatest compliments I have received came from Marvel Studios co-founder Charlie Wen. He is also in charge of the design of the superheroes' costumes. When I was speaking at NASA's Cross Industry Innovation Summit about my prostheses and latest 3D-designed arm, he got up during my presentation and told me that I was the real Tony Stark – in front of the most important people and companies on the planet! You never know where destiny is going to take you.

YOU ARE STUDYING A BACHELOR'S DEGREE AT UIC BARCELONA.

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WHY DID YOU CHOOSE TO STUDY BIOENGINEERING?

I study bioengineering because it's the most suitable degree for developing prostheses. It's possible I may do a Master's in robotics, but bioengineering is more relevant.

WHAT WILL YOU DO WITH YOUR DEGREE?

Above all, help people. Technology is available to everyone and 3D printers have evolved a lot. Many people use them to make standard prostheses using instructions from the internet. The problem is that not everyone has the same disability. A career in bioengineering will allow me to develop better prostheses. I also have an advantage: I can apply all the technology to myself to better understand whether or not it suits our needs.

WHAT WOULD BE YOUR DREAM CAREER AND WHY?

The truth is that another of my passions is music. I composed and produced the tune in my new documentary entitled Mr Hand Solo (don't miss it!). My father, who is also fond of music, composed a song for me that appears in the credits. He has instilled a love for music in me and, to me, it's a very exciting world technologically speaking. I would have liked to study music production, and I'm not ruling out doing something about it.

DO YOU THINK STEM SUBJECTS ARE A GOOD OPTION FOR YOUNG PEOPLE?

Without a doubt, STEM subjects give rise to important scientific advances. The democratisation of technology and lower costs mean that there is greater capacity to spearhead tomorrow's technologies. If a construction toy like LEGO can take me down a path of success, imagine what science, engineering or other STEAMM subjects could do for you.

WHAT ADVICE DO YOU HAVE FOR YOUNG PEOPLE WITH A DISABILITY OR HAVE OTHER PERSONAL CHALLENGES?

May you never lower your arms and stop fighting for your dreams. It's true that my father has helped me a lot, to grow and to be known throughout the world. He made prostheses to help me to ride a bicycle and, recently, he made one that allows me to ride an electric scooter to university, because public transport is almost impossible and very expensive. My mother and my sister are also fundamental to my personal development and have greatly influenced my story.

Growing up in this environment has influenced my life in a significant way. I am lucky and I admit it – it's easy for your fighting spirit to emerge when you have a loving home environment like mine. When you have no support or anyone to encourage you to move forward, it's more difficult. I can only advise that you fight for your dreams no matter what. There is always someone to turn to, to achieve your goals.

FINALLY, WHAT IS YOUR PROUDEST ACHIEVEMENT SO FAR?

I'm proud to have made five functional prostheses with my favourite toy, and experienced what it feels like to pick up objects from a distance, do push-ups, etc.

But the thing that makes me most proud is how my achievements are positively influencing others. I give presentations at international, educational, technological and motivational fairs, which means my story is reaching far and wide.

Not only that, but I'm helping to fight against bullying, which happened to me when I was a child. I think my story is helping a lot of people see disability differently. I believe in a more humane and inclusive world where people with different abilities are accepted and become more visible. My story, and the subsequent media attention, is allowing me to show the world that technology can help us overcome challenges. I really hope that this, combined with my studies in bioengineering, will help me become a great role model.

WATCH THIS:

The trailer to David's documentary: Mr Hand Solo:
https://vimeo.com/429319535/a675cb18a5