

## BUSY HANDS · HAPPY HEARTS

Stories, projects and inspirations from Singapore families who Make and tinker together





# Chinmay & Sayanee

Sayanee: We started making and building gadgets such as remote-controlled vehicles or music synthesisers when we were engineering students more than a decade ago. Chinmay and I are also blessed to have 'Maker parents' who were music enthusiasts with a penchant for aerospace engineering. As you can tell, making came quite naturally to both of us.

### **Back to Making**

Sayanee: Unlike many traditional engineering fields, web technologies require very little time for a full project completion. With such a fast feedback loop, I was immediately hooked on my first attempt. Web technology was indeed my gateway back into making with electronics after a four-year hiatus from engineering.

**Chinmay:** Nowadays, comprehensive instructional guides complete with pictures and videos are readily available on the internet for beginners. The Maker community is also a great source of inspiration for new projects. It is the advancements in technology and such awesome support groups that got me started on making again.



At Singapore PHP User Group in 2007



Chinmay helping web developers get into making by helping them make small remote-controlled boats.



An AUV (robotic submarine) built by a student team for the Singapore AUV Challenge.



#### **Enthusiastic Makers**

We tinker mostly with software and electronic sensors, and we have our own podcast called We Build SG. As we have regular jobs, we usually set aside some time to make in the evenings and on weekends. We hope to further optimise the little time we have by automating household chores through making!

**Sayanee:** Chinmay is a big food geek who loves dabbling in fermentation and other experimental cooking techniques. He is always eager to explore topics on cyber security and embedded systems, and brings me into discussions about what he hears on podcasts. It helps that both of us have different perspectives for each project.

**Chinmay:** Sayanee on the other hand is really enthusiastic about electronic sensors, the user experience, design and automation. She is always figuring out ways to optimise inefficiencies around the house. When it comes to actual programming or design

house. When it comes to actual programming or design

When we visited the Makerspace in Santiago, Chile.

work, Sayanee does need her hours of solitude. But we also think that it is important to involve others in the making process. The Maker community is a great platform to receive honest feedback about your project, which is absolutely critical for making good products. Veteran members can also help you spot potential problems in your projects instantly.

We are fortunate to live in a city with such a vibrant tech scene for developers, designers and Makers. Together with a group of friends from Hackerspace SG, we have been organising monthly meet ups on electronics, Internet of Things and hardware.

Podcasts, social media and books also provide us with ideas that are completely outside of our domain. We will make it a point to visit Hackerspaces and Makerspaces around the world to understand how other people approach making. It is a great learning experience and gives us a global perspective on things.



Local developers, Makers, designers at the post WeBuild Live brunch session



### Making Improves Our Lifestyle

**Chinmay:** The Maker movement lets the community make use of things around us more effectively. Besides having an environmental benefit, it also encourages knowledge exchange and makes us more efficient.

Sayanee: Openness and inclusion stirs creativity and innovation for the entire humanity, and ultimately leads us to a better life. It also connects us on another level, with no barriers of race, language or religion. Making is an innate part of humanity; we have essentially been tool Makers right from the beginning of time.

The popular culture today inadvertently encourages people to be passive consumers. Hence, we tend to forget the satisfaction we can get from making things. But the resources and knowledge to make are all around us. We just need some guidance to unleash our potential!



Hosting Maker parties at home will inevitably leave a dining table full of electronics.



At the code::XtremeApps:: hackathon making a letterbox detector with Arduino, bluetooth low energy and proximity sensors.



Visit Chinmay & Sayanee's Facebook page: We Build SG https://www.facebook.com/webuildsg



"Making is like exercising - if you stop, the feel good factor will be gone." - Agatha

"Anyone can Make! Everyone can be creative!" - Keller

"It is never too late to start Making." - Priyanka

"I always tell people, the magic is in the doing." - Annabel





A publication by

Science Centre Singapore

15 Science Centre Road Singapore 609081

(65) 6425 2500 • www.science.edu.sg