



Introducing ELLA, Singapore's first fully autonomous robotic barista

An unmanned, contactless café experience that serves barista-quality coffee and engage the senses is no longer a thing of the future.



Above: ELLA serving up her daily cuppa at CT Hub 2

SINGAPORE, 2 October 2020 – Pioneers in melding cutting edge innovation into the business of traditional Italian coffee, smart cafe **Crown Coffee** today announced the launch of “**ELLA**”, **Singapore's first fully autonomous robotic barista**. In attendance was guest-of-honour **Miss Low Yen Ling, Minister of State (Ministry of Culture, Community and Youth & Ministry of Trade and Industry)**, who delivered opening remarks and officiated the launch.

Designed by **Crown Digital**, the smart retail solution provider arm of Crown Coffee, the latest version of ELLA, *ELLA X*, was built on the back of four earlier prototypes and experience garnered from serving over 80,000 cups of coffee at over 40 events across the last two years. Situated next to Crown Coffee's CT Hub 2 location, she is the first commercial standalone model—and the most advanced yet—designed for unmanned and contactless retail operations that is launched in the public domain.

“ELLA was borne from a very real problem and necessity when we first started Crown Coffee in 2017. Shortage of labour and inconsistencies in quality led to subpar experiences that didn't have the potential to scale. We created the first prototype with the intention to solve those problems,” shared **Keith Tan, CEO of Crown Group**. “Today, the pandemic has revealed and accelerated even more systemic challenges that have long plagued the food and beverage sector—from high rents to thin margins—and new ones arising from health and safety concerns. My team and I hunkered down during the circuit breaker to re-examine ELLA's role in this brave new world, and how she could navigate all that, while still trying to achieve what we set out to do from day one – to put a great cup of coffee in every hand.”



ELLA IN ALL HER GLORY

Present-day ELLA is powered by an ecosystem comprising patented proprietary IoT (Internet of Things)-connected software and external hardware that upgrades the coffee experience with speed, convenience, quality and consistency, while engaging the user by utilising immersive and innovative digital touchpoints. It takes up a small footprint of less than six square metres and has the ability to operate 24 hours a day, seven days a week.

Fully self-contained with its own mobile app, payment gateway and e-wallet, the end user can order and make payment on the Crown Coffee app on-the-go, while earning rebates by paying using Crown Dollars stored in their Crown Wallet. While ELLA is preparing the coffee, an interactive transparent OLED screen opens up a myriad of possibilities – from serving as an augmented reality photo booth to displaying customised dynamic advertising that is targeted to the end-user’s profile, or even indulging the end-user in a quick game or two. All while ELLA’s six axis robot arm works her magic behind the screen to produce the perfect cup of barista-quality coffee, using high quality Buscaglione Coffee beans that are ground-to-order and freshly frothed milk.

On the backend, computer vision powered by artificial intelligence is monitoring the kiosk 24/7 for any abnormalities that may affect’s ELLA operations. Meanwhile, a fulfillment module, powered by its own mobile app, uses deep learning and predictive analytics to digitise the supply chain management, allowing a single ELLA to operate as smoothly as a hundred ELLA’s across the island would, supported by only a lean fulfilment team with the power of big data.

ELLA THROUGH THE YEARS

ELLA has come a long way since her first prototype was built in 2017 – an automated café solution managed by a six axis robot with digitalised touch points. A successful Proof of Concept in partnership with Alibaba Cloud was completed in the same year. In 2018, Crown Coffee was invited to showcase its robotic barista solution at the ASEAN Summit hosted in Singapore, where it served Prime Minister Lee Hsien Loong, amongst other world dignitaries, their daily dose of caffeine. Six months of development later, the first version of ELLA—a mobile, unmanned café solution offering barista-quality coffee with convenience—displayed her adaptability and mobility at HOFEX 2019, Asia’s leading food and hospitality tradeshow in Hong Kong.

Based on the feedback and experience gained from numerous events, 2019 was the year that saw the greatest transformation for ELLA. Not only were vast improvements made to her speed, consistency and quality of customer experience, the robotic movement and coffee production was also fully enclosed, allowing for higher versatility and scalability in a commercial environment, which even led to the creation of a “baby” ELLA, *ELLA XR*, which was adapted for lower volume requirements and space restrictions.

2020, however, was the year when the world came to a halt due to COVID-19, but ELLA finally came into her own. In a bid to pivot Crown Coffee into a drive-through cafe during the circuit breaker, the team at Crown Digital fast tracked and repurposed ELLA’s mobile app into an ordering and payment platform that allowed for a contactless drive-through experience.

Today, ELLA sits proudly in her new CT Hub 2 home, next to Crown Coffee, serving busy executives and curious onlookers a contactless coffee experience on-the-go. “This is not the dream,” affirms Tan, who had upended a cushy job as a wealth manager and invested the last five years of his life into making ELLA a reality. “ELLA was always designed to scale. The dream is to have ELLA’s all across the island – ELLA X in high density locations, ELLA XR serving areas with a smaller footfall. We designed ELLA for coffee, but the reality is that with a bit of programming – ELLA could exist to serve other types of food and beverage products.”

“I truly believe that ELLA is the future, and we’re closer to the future than you think.”

ELLA is located at CT Hub 2, 114 Lavender Street, #01-25, and operates from 8.00am to 9.00pm from Sunday to Thursday and 8.00am to 10.00pm on Friday and Saturday, serving Americano, Cappuccino, Latte, Teh Tarik and Chocolate drinks starting from \$4, with 25% off when paying with Crown Dollars. Orders can made through the Crown Coffee app, which can be downloaded from Apple’s App Store or Android’s Google Play.



For Miss Low Yen Ling's full speech, please visit <https://www.mti.gov.sg/Newsroom/Speeches>.

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ABOUT CROWN COFFEE

Crown Coffee is a smart IoT (Internet of Things) café that pioneers a technology-driven concept that combines traditional Italian coffee with cutting edge innovation. Opened in 2016 by former wealth manager and coffee enthusiast Keith Tan as the sole importer of Buscaglione Coffee, a high-quality espresso from a modern roastery in Rome, Italy, the café's early days pivot into fully automated coffee machines propelled its status into one of Singapore's first smart cafes. Today, Crown Coffee is one of two business arms of the Crown Group; the other arm belonging to Crown Digital, a smart retail solution provider that seeks to help digitalise traditional business models with the use of Artificial Intelligence and Machine Learning. It was through Crown Digital's expertise where Ella, Singapore's first robotic barista, was conceptualised, propelling the brand into international recognition. The group's combined domain expertise in retail, hospitality and automation primes its position as an IoT and digitalisation evangelist.

Download media kit: <http://bydan.me/meetellapresskit>

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