

**The 21 technological products designed by the students that joined the Jockey Club Community Care and STEM in Action Project**

<b>Participating school</b>	<b>Product name</b>	<b>Product description</b>	<b>Target Beneficiaries</b>
Lok Sin Tong Yu Kan Hing Secondary School	Bus Reminder #	Emits audio and light signals to remind elderly and visually impaired people that their bus has arrived at the stop.	Visually impaired, elderly
	Smart Mama #	Remotely monitors the wetness of nappies and reminds caregivers when they need to be changed.	
	Ventpro #	A compact air purifier tailor-made for small-home residents.	Social housing and nano-flat tenants
	Elevating Wheelchair *	Allows users to adjust the height of the seat for convenience.	Wheelchair users
	Odourless Cooking Gadget for Nano Living Space *	Detects a cooking device's power status and heat levels, while its multi-exhaust filters remove oily fumes to purify the air.	Visually impaired, social housing and nano-flat tenants
Christian and Missionary Alliance Sun Kei Secondary School	Bus Reminder #	Emits audio signals to remind elderly and visually impaired people that their bus has arrived at the stop.	Visually impaired, elderly
	Medicine Giver #	With a pre-recorded audio reminder, visually impaired and elderly people and those with dementia can take correct doses of their medicine on time.	
	Story Teller #	An app for elderly people and those with mild dementia, it helps users chronicle special moments in their lives and has a built-in game that improves memory.	
	Clothes Distinguisher *	An app that identifies clothing types and colours, so visually impaired and colour-blind people can select clothes for different	

		occasions.	
	Safety Kettle *	With this smart water dispenser device, users can easily locate where to put their cups, and select water at their preferred temperature and capacity.	
Pentecostal Holiness Church Wing Kwong College	Necklace #	A gadget that detects obstacles and warns visually challenged users, helping to protect them.	Visually impaired
	Smart Medicine Dispenser #	Equipped with an audio alarm, the dispenser reminds users to take the drugs stacked in the storage bin on time.	
	Elevating Seat Cushion *	Wheelchair users will find it easy to adjust the seat height with the cushion safely retrofitted on a wheelchair or seat. Handy in many scenarios, e.g., taking cash from an ATM or dining out.	Wheelchair users
	Smart Dining Assistant *	Retrofitted with a magnetised adapter, this gadget helps elderly users and those with hand injuries switch eating utensils, giving them a hassle-free dining experience.	Elderly and those with hand-injuries
Buddhist Wong Wan Tin College	Moderator *	A board game that entertains visually impaired people and expands their social circles with able-bodied people.	Visually impaired
	Smart Stove *	Retrofitted with a device that detects abnormalities, the stove helps visually impaired people cook safely.	
Carmel Holy Word Secondary School	Railway Safety Device for the Hearing-impaired *	Emits flashing lights to help hearing impaired people avoid door crush injuries.	Hearing impaired
	Text Interpreter *	An app that facilitates communication between	

		hearing-impaired and able-bodied people. With its audio input function, the app can interpret a voice into written words and images.	
	Fire Sensor *	A remote fire sensor-cum-alarm. When the sensor detects a fire source, it emits flashing lights and vibrations to alert the elderly and hearing-impaired to the fire.	
Hong Kong Baptist University Affiliated School Wong Kam Fai Secondary and Primary School	Hale-ware *	A set of dining ware, including bowls, chopsticks and gloves. The uniquely designed bowl prevents solid and liquid food from spilling, making dining easier.	Visually impaired, elderly
	MED-Chine *	An automatic device for pouring medicinal liquids. MED-Chine allows the visually impaired and chronically ill patients to measure teaspoon doses accurately and easily.	

# Products in the final phase

\* Prototypes in the second/final phase

### **About the Jockey Club Community Care and STEM in Action Project**

Funded by the Hong Kong Jockey Club Charities Trust, CUHK's Centre for Learning Sciences and Technologies launched the Jockey Club Community Care and STEM in Action Project in September 2019, in collaboration with CUHK's Hong Kong Institute of Educational Research and Lok Sin Tong Yu Kan Hing Secondary School. Six local secondary schools joined the project: Lok Sin Tong Yu Kan Hing Secondary School, Christian and Missionary Alliance Sun Kei Secondary School, Pentecostal Holiness Church Wing Kwong College, Buddhist Wong Wan Tin College, Carmel Holy Word Secondary School, and Hong Kong Baptist University Affiliated School Wong Kam Fai Secondary and Primary School. Part of a quadripartite partnership between the University, participating schools, social service organisations and enterprises in Hong Kong, the project consists of a three-phase curriculum and provides an interactive platform for real-life STEM learning, enabling students to unleash their creativity and harness innovative technologies to help disadvantaged groups improve their quality of life.