Israeli Tech for Covid-19:
How Israeli Tech Companies and Initiatives Are Responding to the Crisis

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Overview

The global pandemic has affected every sector and business around the world. In Israel, while some companies face hardship and possible extinction as a result of the collapse of industries such as travel and entertainment, many tech companies have emerged with renewed energy. They're inventing new solutions and adapting products and technologies to ease the burden on the health system, and help people and businesses survive during and beyond the crisis.

Technology has a critical role to play in containing, managing and providing solutions to the new challenges that have arisen out of the Covid-19 global pandemic. From symptom detection and diagnosis, patient tracking, contamination prevention and protecting medical staff, to wellbeing for the homebound and technologies to help businesses get back to work, Israeli technology companies and initiatives are offering local and global solutions that are already making an impact.

Israel's defence sector has also entered the fray, harnessing its advanced capabilities to fight Covid-19. The Directorate for Defence R&D has put together a cross-industry national emergency team, bringing together experts from various ministries, military units, companies, private entrepreneurs and research institutes, in an effort to develop ventilator solutions, disinfection methods, patient monitoring, protective gear and AI to forecast future spreads of the virus.

In an effort to speed up disruptive innovations to address Covid-19-related issues, the Israeli Innovation Authority put out a call for proposals and received 750 applications. Out of those, a few dozen promising startups will receive grants totalling $15m to accelerate their R&D and expedite their Covid-19-related solutions' time to market.

In this document, we present an overview of selected Israeli technological solutions in various relevant fields: monitoring, contact tracing and reporting, digital health, ventilation devices and PPE, logistics, and other tech solutions aimed at mitigating the new reality through technology and innovations.

Monitoring, Contact Tracing and Reporting

One of the most effective digital tools to slow and contain the spread of Covid-19 involves tracking people who have contracted the virus or are reporting symptoms. Various solutions are in use for monitoring, contact tracing and reporting; they use a variety of technologies and innovations in order to provide the most accurate data and prevent false information reaching citizens and leaders.

The following section gives an overview of the solutions offered by Israeli tech:

- Voluntary contact tracing apps using location history

- Anonymous medical questionnaires analysed to provide contact tracing and forecasting

- Algorithm-based cellular radio-logs tracking

- Call centre management tools for remote screening and accurate reporting

- Physical wearables-based surveillance

Most solutions require available mobile data to operate, but there are technologies that enable data collection directly from cellular towers or through unstructured supplementary service (USSD) data, which can reach any mobile phone, whether connected or not.

> Monitoring, Contact Tracing and Reporting

Company or initiative	Covid-19 solution	Tech requirements and privacy	In-use for Covid-19
GlobeKeeper Link to website	**Voluntary contact tracing app** called SAFE. Enables users to cross-reference location history with known patients, alerts users if they crossed paths with verified patients and encourages them to report to authorities and self-quarantine. The app uses the phone's location history and cross-references it with epidemiological investigations of existing cases. B2G/communities.	Tech: GPS, Bluetooth, data over sound and Wi-Fi hotspot discovery. Privacy: Users' data encrypted with military-grade cybersecurity for ensuring privacy. GDPR compliant.	Israel MoH, US counties.
Neura Link to website	**AI-enabled contact tracing for governments**, public health officials and first responders, based on analysis of complex mobile data, without compromising privacy. Offers digital epidemiological investigations, contact tracing alerts and info, and real-time gathering detection for high-risk areas. B2B/B2G.	Tech: available mobile data required, connected mobile phones. Privacy: no personal/health info, encrypted, GDPR and CCPA compliant and ISO27001 certified.	Israel emergency medical services org, US not disclosed.
Wave Guard – Tracer Link to website	**Algorithm-based solution for contact tracing for governments and healthcare agencies without an app**, based on analysis of encrypted mobile data – pre-filtered, anonymised information is collected via cellular radio logs. Enables governments to reconstruct infected people's locations retroactively and monitor quarantined people in real time. The platform was initially designed for law enforcement and intelligence organisations' contact tracing. B2G.	Tech: Any mobile phone (based on IMSI), mobile data required. Privacy: GDPR and CCPA compliant, adaptable, does not collect geolocation data from individuals' devices.	Negotiations with several governments. Not disclosed.
Carbyne Link to website	**Remote evaluation platform for ECCs** (emergency communication centres). Offers accurate location logging (user approved), instant chats, video calls screening, live dashboards. B2G/B2B.	Tech: Mobile data required. Privacy: comms initiated by the ECC and approved by users, no info is stored, access is terminated post call.	Israel, US, México, Peru, Chile, Brazil, Philippines.

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> Monitoring, Contact Tracing and Reporting

Company or initiative	Covid-19 solution	Tech requirements and privacy	In-use for Covid-19
Diagnostic Robotics Link to website	**Covid-19 AI medical-grade remote triage and monitoring system for healthcare providers** and government agencies. Offer includes: a symptom self-checker; personalised risk assessment and guidance to users; patient progress monitoring; automated patient queries; alerts about high-risk patients; and live dashboards at a community and regional level. Based on anonymous questionnaires and predictive algorithms. **Pro-bono offer to governments.** Interoperable with USSD for developing countries.	Tech: Mobile data or internet access. Privacy: only collects users' active input.	Israel (MoH), US, India, Spain, Argentine, Mexico.
N-Frnds Link to website	**Toolkit for case management for developing countries'** governments and health organisations. Offer includes: information to citizens (menus and chat messages); home-based care and diagnostics with basic contact tracking; basic case tracking in country outbreak dashboard.	Tech: any mobile phone, with/without mobile data or internet connectivity. Privacy: Compliant and adaptable.	Indonesia, in negotiations with other countries in Southeast Asia.
SparkBeyond Link to website	**AI-based predictive maps and actional insights** (e.g. the church cluster that lead to significant spreading in South Korea). The AI platform can predict and prevent the spread by analysing data in real-time and generating heatmaps and novel ideas for action. Analyses data inputs and publicly available data.	Tech: AI-based system to analyse inputs (MoH data) and publicly available data. Privacy: N/A.	Singapore, Argentine, Italy, Israel.
SuperCom's PureCare Link to website	**PureCare is a physical and online solution for quarantine and isolation monitoring** to aid government efforts in containing and limiting the spread of the virus. PureCare is a non-intrusive system that constantly tracks patient location. Based on an ankle bracelet and cloud-based software.	Tech: Wearable bracelet connected to cloud-based software. Privacy: customisable privacy rules to limit the data collected and stored.	US, China, Ecuador, Ethiopia, Hong Kong, Israel and more.

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Digital Health Solutions

The Covid-19 pandemic poses a variety of new challenges to all healthcare professionals and facilities, including clinicians and researchers. In response, governments – including that of Israel – have enlisted high-tech companies to offer digital health solutions in the battle against Covid-19.

Well-established companies and new disruptive start-ups in the digital health sector, as well as new initiatives launched by universities and the Ministry of Defence R&D unit, are offering their technologies and innovations to relieve the strain on overburdened healthcare systems locally and globally.

The following section presents an overview of Israeli technological innovations that serve healthcare teams and hospitals in Israel and around the world.

The digital health solutions in the following slides include:

1. Symptom detection and diagnosis:

    • Remote triage of Covid-19 symptoms

    • Remote monitoring of vital signs for isolating wards to detect and flag deterioration

    • Big data and AI solutions to improve the speed and efficiency of testing and scans

2. Telemedicine: automated remote solutions for healthcare providers, home-care patients and people under quarantine.

> Symptom Detection and Diagnosis

Company or initiative	Covid-19 solution	In-use for Covid-19
Binah.AI Link to website	**AI-powered, remote triage of Covid-19 symptoms in real time via a smartphone's camera.** Tests heart rate/variability, respiratory rate, oxygen saturation and blood pressure. Clinically tested for medical-grade accuracy, and doesn't require internet connection (delivered in SDK/white label app platform). **Suitable for home-isolated Covid-19 patients.**	Israel, US.
Clew Link to website	**AI-powered predictive analytics for ICU patients.** Delivers real-time optimised patient workflow and clinical resource allocation, and early predictive warnings for patient complications (flagging patient deterioration 6-12 hours before condition worsens). The platform utilises available patient data to provide predictions for early identification and intervention as well as patient prioritisation. Interfaces with existing EMR systems and medical devices. Can be deployed on-premises or in the cloud.	US, France, Israel.
Early Sense Link to website	**Early detection of patient deterioration through vital signs sensor monitoring.** The clipboard-sized sensor provides contact-free, continuous monitoring of heart rate, respiratory rate and motion. **Can be embedded in any mattress to monitor sleep, vital signs and motion** to help in early detection of patient deterioration.	Israel.
Medial EarlySign Link to website	**AlgoMarker™ identifies individuals potentially at increased risk of suffering Covid-19 complications.** Enables prioritisation of patients for testing and treatment, while reducing chart review time to determine status and course of treatment. The predictor is based on vast US-based database and 27 years' worth of anonymised electronic health record (EHR) data from leading Israeli HMO Maccabi Healthcare Services. EarlySign's "IT-Lite" two-step data export/import services run **a one-time batch calculation on the entire patient population**.	Israel, US.

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> Symptom Detection and Diagnosis

Company or initiative	Covid-19 solution	In-use for Covid-19
'Cockpit' by MoD and Technion Link to website	**AI, radar and advanced optical-sensor-technology-based system to remotely collect, analyse and send to a secure workstation outside the patient's room**. The system records a patient's pulse, body temperature and respiration. The entire process ensures that medical teams can operate in a sterile environment, minimising the risk of exposure.	Israeli hospitals.
Rafael Advanced Defense Systems Link to website	**Vital signs monitor based on smartphones with embedded advanced image processing and detection algorithms** (similar to Rafael's missiles), as well as **encrypted, cloud-based application for secure access to all patients' metrics.** Phones are placed in front of the monitors on special cradles and provide ongoing images of patient data from the monitors without interfering with their operation or their accuracy. Data is then transmitted to the medical teams, eliminating the need for any direct contact.	Israeli hospitals.
BioBeat Link to website	**Wearable vital signs monitor, providing continuous, non-invasive medical-grade monitoring** of blood pressure, oxygen saturation, respiratory rate, heart rate, temperature and other vitals in Covid-19 patients.	Homecare and Israeli hospitals.
RADlogics Link to website	**AI-powered solution to support chest CT imaging for Covid-19 patients.** RADLogics' solution enhances the ability to manage symptomatic patients – especially those with severe or worsening respiratory status. The patented software and algorithms enable rapid deployment of the solution, and can process up to 1 million CT studies per day. Easy integration and installation both on premises and via the cloud.	China, Russia, Italy, Israel, Serbia and Brazil.

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> Symptom Detection and Diagnosis

Company or initiative	Covid-19 solution	In-use for Covid-19
diagnostics.ai (IL-UK based) Link to website	**Automated analysis of PCR tests.** pcr.ai AI-platform is designed for increased throughput for central laboratories as well as aid for small labs and clinics running PCR tests, through machine-learning and its application to automated protocols and analyses. Interpretation accuracy of 99.9%+, as validated in five independent studies.	King's College Hospital, UK, CLIA Labs, US.
Sight Diagnostics Link to website	**AI and image-processing-based blood count and blood test device for remote and accurate results.** Fast and remote blood tests/counts as part of the Covid-19 remote diagnosis process. The device can be operated by anyone (fit for people in isolation) and results are available within minutes. One of the largest hospitals in Israel has already started using the kit with patients in isolation.	Israel, US, UK, India.
SmellTracker – Weitzman Institute Link to platform	**SmellTracker is an online platform that enables self-monitoring of an individual's sense of smell to detect early signs of Covid-19.** SmellTracker uses an algorithm that charts smell perception using five household items. This may help people notice early signs of Covid-19. Developed by Israeli scientists at the Weizmann Institute.	Global, free platform – 14 languages.
PulmOne's MiniBox+ Link to website	**MiniBox+ is a patented desktop plethysmography device for complete pulmonary function testing (lung function) in any clinical setting.** It includes gasless and cabinless spirometry and lung volume measurements (LVM), as well as single-breath DLCO testing. Includes filters with 99.99% protection against viral cross infections.	In use in Israeli hospitals before Covid-19.

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> Telemedicine

Company or initiative	Covid-19 solution	In-use for Covid-19
Datos Health Link to website	**Automated remote Covid-19 telemedicine solution for healthcare providers and home-care patients.** Datos developed the following (already in use) Covid-19 programmes (adaptable): remote monitoring of confirmed Covid-19 patients in home-care; transformation of all hospital ambulatory services and out-patient clinics to operate virtually; providing large-scale health organisations (gov/local admin) with aggregated reports of positive and quarantined patients, analysed by severity and location.	Israel, US, Italy.
Essence Group Link to website	**Essence's Care@Home platform (originally for nursing homes) has been rolled out in 'corona hotels'** across the Netherlands. The platform enables professional care providers to monitor individuals remotely, keeping them safe and taking pressure off essential services without the need for potentially invasive cameras.	Netherlands.
Tyto Care Link to website	**An all-in-one remote medical examination solution, allowing physicians to connect remotely with quarantined or symptomatic patients in hospital wards or at home via a handheld device.** Tyto's devices examine the heart, lungs (key for monitoring Covid-19), skin, ears, throat and abdomen, as well as measuring body temperature, and providing health professionals with the clinical data required to make informed treatment decisions while minimising physical contact.	Israel, US.

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Ventilation Devices

Fears that Israel would suffer from a shortage in ventilators led to unprecedented multi-disciplinary collaboration between medical professionals, the defence industry, private-sector companies and entrepreneurs. They came together under the national mission to supply the MoH with approximately 6,500 ventilation devices to match the dire forecasts, and to ensure that all patients in need of ventilation support would receive it. The idea was that the less critical patients would receive care from these non-invasive ventilation devices, keeping the high-acuity ventilators available for critical care patients.

This was done in two ways:

1. Repurposing defence companies' production lines for Israeli companies producing ventilation devices, steered by the MoD in collaboration with the MoH.

2. Initiating multi-disciplinary groups of engineers, medical professionals and entrepreneurs, mostly coordinated by the Directorate for Defence R&D (DDR&D), to design simple models of ventilation devices for mass production at low cost from available components.

   - One of these initiatives – AmboVent – shared its design as open source to help teams across the world, particularly in developing countries, produce ventilation devices locally.

> Ventilation Devices

Company or initiative	Covid-19 solution	In-use for Covid-19
AmboVent Link to website	**Not-for-profit initiative making an open-source, compact, automated ventilation device**, designed for mass production at low costs, using off-the-shelf components, removing the need for complex assembly lines. Device can adjust the volume of air and 'mechanical breaths' per minute. Pending FDA approval, AmboVent was clinically tested in Israel. Compliant with UK's RMVS specification. Originally initiated by the Air Force, together with Microsoft, local hospitals and engineers in Israel.	40,000 downloads, 150 global teams. Pending FDA approval.
'Breath of Air' Sheba Hospital and unit 81, IDF Link to website	**Automated ventilator from converted home-use respirators (BiPAP).** The device can provide breathing support, serve more than one patient simultaneously and be synced with a central system for doctors to monitor lung pressure and vital signs.	100 devices in Sheba hospital, Israel.
Manshema Link to article	**Inexpensive, disposable, flow-driven, electronically controlled ventilation device** made from existing parts that are widely available. The device is non-invasive and suited <u>for low-to-moderate-risk Covid-19 patients</u>. The system provides BiLevel positive pressure (maintains constant positive pressure).	MoH approved to begin pilot.
LifeCan Medical Link to website	**LifeCan One – smart, automated ventilation device providing initial-stage respiration care <u>to patients with less severe respiration conditions</u>**, for easing the acute shortage in ventilators. Converted from manual BVM. Elbit Systems (defence) are now producing in their repurposed production lines.	100+ devices provided, 3,000 ordered by MoH.
Inovytec Link to website	**Ventway Sparrow ventilator – ultra portable turbine ventilator.** Durable, reliable device, which provides <u>efficient chronic ventilation</u> for Covid-19 patients and only requires periodic filter replacement. Produced by the air force industry, in their repurposed production lines.	2,500 ordered by MoH. Sold to UK, Italy, Spain.
Flight Medical Link to website	**Flight60 – fully independent, turbine-based ventilator for reliable ventilation across the spectrum of care.** Volume control and pressure control for invasive and non-invasive ventilation. Cost effective solution. Rafael Advanced Defense Systems are now producing in their repurposed production lines.	1,000 units ordered by MoH.

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Innovative PPE Solutions

The race towards equipping all medical staff and frontline workers with personal protective equipment has led to companies pivoting their R&D and production towards collaborative initiatives locally and globally, offering various 3D-printing solutions.

The overview in the next section is focused on face masks and face-shielding solutions, highlighting three types of innovations, some of which overlap.

1. 3D-printed solutions – for quick turnaround supply

2. Biotechnology solutions – for advanced protection

3. Multi-disciplinary collaboration between universities, hospitals and defence

> Innovative PPE Solutions – Face Masks

Company or initiative	Covid-19 solution	In-use for Covid-19
Israel Institute of Technology with DDR&D and the Galilee Medical Centre Link to website	**Maya Sticker is a unique nanotech that upgrades standard surgical masks' effectiveness to N95 level and above.** Manufactured using a 3D printer and nanometric fibres coated with antiseptics. The nanofilter and biocidal agents improve the trapping of nanometric particles and efficiently neutralise viruses from droplets that might reach the mask. Link to video.	Piloted across all Israeli hospitals.
Sonovia Link to website	**SonoMask is a durable antimicrobial face mask, adjustable and washable for reuse**. SonoMask's sono-chemical coating technology harnesses the power of sound waves to impregnate potent, antibacterial, non-toxic chemicals, ensuring long-term durable protection. SonoMask's clinically validated filtration of five microns provides a barrier from infective micro-droplets, and its dual layers, coated with zinc oxide, provide long-lasting antimicrobial protection of 99.9%.	Commercial and donations to Israel, China, Germany, Singapore, US.
Argaman Link to website	**BioBlocX™ is a reusable mask made from five protective layers**. Four of these are infused with copper, and the inner layer is a patented nanofibre filter membrane. The active material has been shown to deactivate other viruses. It offers high-level protection with no bio-hazard residue, as the positive ions from the copper attach themselves to the backbone of the virus, thus deactivating virus duplication. Both masks or fabric for local manufacturing of masks are available.	Hong Kong, commercially sold worldwide.
ViriMASK™ Link to website	**Protective oculo-respirator for full-face protection, designed for frontline workers.** The respirator provides high level of protection (99.9%) and prevents conjunctival contamination. The device can be washed and disinfected, replacing filters is easy, and it can be safely packaged for disposal.	Commercially sold worldwide.

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> Innovative PPE Solutions – Face Shields

Company or initiative	Covid-19 solution	In-use for Covid-19
Stratasys **(IL-US based)** Link to website	**Reusable 3D-printed face shields** for healthcare workers, which can be disassembled, disinfected and sterilised between uses.	Over 100,000 face shields shipped to US and Israel.
Massivit 3D Link to website	**High quality, reusable, ergonomic PPE face shield via an open-source design and large-format 3D printing** (visor shield and sheet). Massivit's global partners and customers are collaborating in printing and distributing.	Global, open source.
Israel Institute of Technology and Rambam Medical Centre Link to article	**Face-covering air curtain mask, designed to prevent infection from droplets.** The solution includes a 3D-printed face shield with a pipe attached to it, blowing air in through a small 3D-printed fan (based on fans used by armies as part of protective gear against chemical and biological weapons). The system also addresses medical staff's complaints of extreme heat and vision impediment caused by wearing protective gear.	Israel.
Tikkun Olam Makers (TOM) by Reut Group Link to website	**Reut Group's global non-profit – Tikkun Olam Makers – built an open-source database of over 40 solutions for makers to launch their own response teams.** TOM successfully mobilised a "maker army" across the globe to make protective gear to combat the spread of the virus. Solutions include: face shields, face masks, a hands-free door opener, a wheelchair-tyre cleaner, WHO alcohol-based hand rub and ventilators' 3D-printed parts.	US, Israel, global.

Logistics Tech Solutions

Logistics technology companies in Israel are mostly focused on global markets, where opportunities for international shipping and operations are available, and there's a readiness to adopt digitisation and automation.

Under the Covid-19 global restrictions on travel and export, delivery and fulfilment logistics are more important than ever to meet the demand for rapidly growing delivery volumes, and to keep businesses alive.

Legacy technology solutions are struggling to meet new requirements, such as contactless delivery and multi-fleet dispatch.

The following solutions include:

1. Smart local delivery management platform

2. Automated drones for unmanned deliveries and operation

3. Import/export platform

> Logistics Tech Solutions

Company or initiative	Covid-19 solution	In-use for Covid-19
Bringg Link to website	**BringgNow offers businesses a core solution for delivery management – now offering it for free to SMBs struggling through Covid-19.** The solution includes: a real-time digital dispatch dashboard; the ability to dispatch to third-party delivery providers; mobile apps for managing delivery drivers; and a real-time, branded delivery tracker for customers.	US, UK, Canada, Israel.
Flytrex Link to website	**Tailored end-to-end drone delivery solutions.** Flytrex supplies its Mule drone – which can carry a 3kg load and travel up to 13km at a speed of up to 55 km/h – as part of the holistic solution. Flytrex is partnering with a growing number of towns and counties worldwide to deploy sterilised drone base stations and offer delivery of essential goods to consumers.	Operating globally, geographies not disclosed.
Percepto Link to website	**Autonomous and remotely controlled drones for industrial onsite facility protection, monitoring and operation, mostly suitable for the mining, oil and gas, solar and thermoelectric power industries.** Powered by AI and computer vision, Percepto autonomous drones allow for remote operation with live video, full cycle automation, data upload and analysis, reports, and audits.	US, Mexico, Singapore, Portugal, Israel, Italy.
Freightos Link to website	**Online freight platform helping importers and manufacturers of all sizes remotely maintain global imports/exports, despite rapid supply-chain shifts caused by the pandemic.** Freightos is focusing much of their efforts on the import/export bottlenecks caused by the Covid-19 crisis's travel and export bans in Southeast Asian countries.	China, US, Israel, Hong Kong, India.

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Additional Tech Solutions for Covid-19

Israeli tech companies, start-ups and newly established initiatives are offering a wide range of technological solutions for fighting the spread of Covid-19, managing the crisis and helping people affected by it – as well as for addressing the new global challenges and demands of the post-Covid-19 world.

The following section provides an overview of technological solutions to Covid-19-related challenges using robotics, soundwave technology, Internet of Things (IoT) sensors and machine-learning innovations.

These include:

1.   Robotics solutions for enabling remote care, communications and sterilisation

2.   Remote temperature screenings for mass gatherings and drive-throughs

3.   AI-based emotional wellness and engagement platforms for vulnerable communities

4.   Touch-free solutions and hygiene micro-stations for the workplace

5.   Global genetic research platform, global study to identify a vocal biomarker for Covid-19, IoT-based wastewater management and face recognition of individuals with face masks

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Company or initiative	Covid-19 solution	In-use for Covid-19
Corobot by Temi and Rafael Defense Technologies Link to article	**The Corobot is a combined solution of Temi's personal assistant robot and image processing (face recognition) and computer vision algorithms added by Rafael Defense technologies.** The robot can perform a number of routine nursing tasks, including distribution of food and medications, and enables remote communication between nurses and patients via a screen.	Temi robot is in use in China, Hong Kong and South Korea.
RobotiCan Link to website	**RobotiCan's NurseeBot is a robot specially developed for Soroka Medical Centre's coronavirus departments.** The robot enables direct communication between doctors and coronavirus patients without any physical contact in order to prevent exposure that could lead to infection.	Soroka Medical Centre, Israel.
IAI's Sterilisation Robot Link to article	**Israeli Airforce Industry's robot carries adapted UV-C technology, designed to disinfect coronavirus facilities at hospitals.** It is now in testing for sterilising passenger aircrafts to address new requirements for aircraft disinfecting between flights.	Two Israeli hospitals.
Kryon Link to website	**AI-powered robotic process automation (RPA) for enterprise automation.** Kryon built a solution for HMOs to integrate their Covid-19 testing patients with the Israeli Health Ministry. **They now offer free use of the platform and support** to enterprises that meet their criteria for implementation.	Two of the three HMOs in Israel.
ThermoGate Link to website	**ThermoGate is a temperature screening device** developed by a team led by Iron Drone (solution against malicious drones) founder and veteran of 8200 IDF intelligence unit. ThermoGate has been optimised for mass gatherings, including shopping malls, schools, offices and stadiums.	In production. Tested in Israeli supermarkets.
UVeye Link to website	**Remote vehicle inspection systems, which detect fever in drivers and passengers.** Suitable for drive-through checkpoints in critical locations. The technology was initially created to detect bombs and explosives strapped to cars.	Collaboration with car makers in US and UK.

> Additional Tech Solutions for Covid-19

Company or initiative	Covid-19 solution	In-use for Covid-19
MyndYou Link to website	**AI and voice analytics to support and keep vulnerable populations engaged**. Automated screening and case management through MyEleanor voice bot and virtual care manager; remote engagement to combat social isolation; and AI-based voice analytics to passively detect changes in heart rate and trigger proactive interventions.	Israel, US, Japan.
Wisdo "Class of Covid-19" Link to website	**Wisdo is an emotional wellness self-care platform that provides users with wisdom from others who have lived through similar experiences.** Wisdo launched a study of 25 million US and UK students' emotional responses to Covid-19. Students receive free access to the platform for six months, and the results are anonymously aggregated to provide insights into the emotional wellbeing of today's society. Tracker demo.	US and UK college and university students.
Sonarax Link to website	**Touch-free solutions for Covid-19 response, using soundwaves to transfer data between any devices with a microphone and a camera.** The solutions harness the power of sound to verify physical presence and track movement in indoor spaces with unprecedented precision. For the data exchange to work, Sonarax's SDK (software development kit) must be implemented on both devices for soundwave connectivity. Solutions include touch-free entrance access, attendance verification, touch-free payments and maintaining social distancing,	China, Japan, Russia, US, Israel.
Soapy Care Link to website	**IoT-powered hygiene micro-station to provide users with a precise dose of soap and water.** The eco-friendly hygiene micro-station is helping consumers to wash hands effectively according to standards set by the World Health Organisation.	Sold locally and internationally to institutes.
Geneyx Link to website	**Cloud-based genetic databank to help identify genetic risk or resistance factors to Covid-19.** Running a study comparing mild and severe cases of Covid-19, to determine if genetic mutations increase/decrease response to the virus, and categorising them for the DNA sequencing process to commence. Geneyx plans to compile a database mapping sensitivity to the virus, which can help give advance warning to healthcare teams.	Hospitals in Israel, Italy and China. Calling for global collaboration.

> Additional Tech Solutions for Covid-19

Company or initiative	Covid-19 solution	In-use for Covid-19
Vocalis Health Link to website	**AI-based platform that uses voice to detect and monitor health status.** Launched a global study to collect voice samples, to be able to triage, screen and monitor Covid-19. Through a vocal biomarker for Covid-19 and big data analysis, the platform will alert about early symptoms and monitoring using a smartphone only. The study is being conducted under IRB approval.	Global study, study in Israei hospitals.
Kando Link to website	**IoT, algorithm-based system for wastewater utilities to detect pollution anomalies and blockages in real time,** in order to keep the world's sewage systems hygienic and working. The solution allows cities to control – continuously and remotely – their wastewater quality and protect the public health. The solution includes: IoT sensing units (including automated samplers), web-based analytics engine and clear upstream methodology.	Italy, US, Australia, Israel.
Corsight Link to website	**AI-powered real-time facial recognition platform, capable of face recognition despite face masks, goggles and shields.** Developing a system that can identify individuals even with faces covered (requires less than 50% of the face to be visible), poor lighting, long-distance identification and difficult angles within population centres.	In final stages of R&D.