

2022 SECOND HALF

ZER01NE

ACCELERATOR

STARTUP APPLICATION GUIDE

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ZER01NE ACCELERATOR, open innovation platform for Hyundai Motor Group (HMG), is calling for startup applications. Open calls are conducted semi-annually, and this application guide describes details regarding the program for the second half part of 2022. We aim to connect external startups from all over the world with internal teams in Hyundai Motor Group to execute collaborative projects. Any startups interested in collaborating with HMG are welcome to apply!

PROGRAM OVERVIEW

ZER01NE ACCELERATOR is an open innovation program operated by Hyundai Motor and Kia.

SUMMARY

- **Connecting Hyundai Motor Group (HMG) internal teams & external startups to create synergy**
 - ① Sourcing external startups based on internal needs derived by HMG internal teams
 - ② Piloting strategic partnerships by executing HMG and startup collaboration projects
 - ③ Making equity investments to establish strategic relationships (Seed ~ Series A)

COLLABORATION w/ HMG

- **HMG internal teams directly participate in the program as shown below**
 - ① Deriving open innovation projects with startups based on internal needs
 - ② Participating in startup review and selection process
 - ③ Executing collaborative projects with selected startups (project budget provided by ZER01NE)

ACHIEVEMENTS

- **Various open innovation activities throughout 9 batch programs since 2018**
 - ① 125 internal teams within 11 subsidiary companies of HMG participating in ZER01NE ACCELERATOR
 - ② 115 startups cohorts participating in ZER01NE ACCELERATOR
 - ③ 97 collaborative project executions (82 New Biz/Tech, 15 Vehicle USP), and 54 startup investments

APPLICATION

ZER01NE ACCELERATOR is sourcing startups eligible to participate in 20 projects derived by HMG.

OPEN CALL TARGET

- Relevant startups to participate in collaborative projects with HMG may apply
 - ① Target : Startups eligible for partnership with HMG
 - ② Investment Stage : Seed to Series A preferred (above Series B may also apply)
 - ③ Minimum Qualification : Startup must be incorporated, registered, and legal entity

APPLICATION PROCEDURES

- Select ONE project from the 'Project List' on pages 4-6 and apply as shown below
 - ① Submission Period : July 11th - July 29th (KST)
 - ② Process : Submit your application via Application URL below (company deck required)
 - ③ Application : <https://zer01ne.zone/en/join-us/startup/> Inquiries : startup@zer01ne.zone

TIMELINE

- Dates may change under operational circumstances, and all results will be announced individually

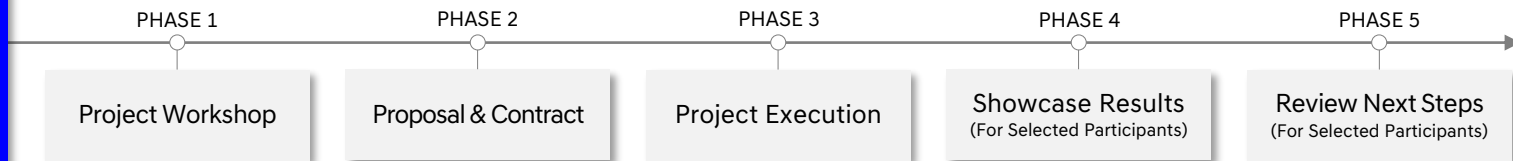


BENEFITS

ZER01NE ACCELERATOR provides project development budget and funding opportunities

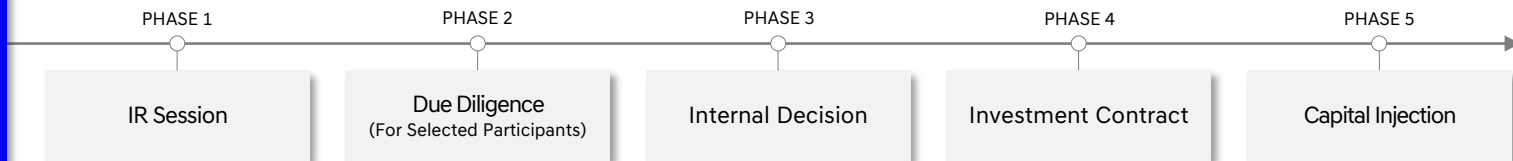
PROJECT TRACK

- Collaborative PoC project with HMG to develop new biz or new tech



FUNDING TRACK

- Strategic investment opportunity (Seed - Series A preferred)



※ MECA TRACK (develop USP product for vehicles) will be conducting open calls in the first half of 2023

PROJECT LIST (Startups may apply to ONE project only)

THEME 1 : ENERGY

CODE	PROJECT TITLE	PROJECT DESCRIPTION	HMG SUBSIDIARY	SOLUTION TYPE	TARGET REGION
A1	Power-compatible EVSE (EV Supply Equipment)	Smart grid solution that can calculate electricity costs on an hourly basis to control EV charging (parallel to solar panel) and bidirectional charging between V2G/V2H	Hyundai Mobis	HW, SW	Korea
A2	Mobile ESS Solution (Energy Storage System)	Portable/mobile ESS to replace diesel generators that can manage energy loads at peak time - Control discharge at desired time/condition, and monitor state of charge for renewable energy - Vehicle-mounted portable ESS for stability maintenance in frequent external condition changes such as shock during movement or locational change	Hyundai E&C	HW, SW, SERVICE	Korea

THEME 2 : MOBILITY

CODE	PROJECT TITLE	PROJECT DESCRIPTION	HMG SUBSIDIARY	SOLUTION TYPE	TARGET REGION
B1	AI Voice Synthesis Solution	Voice command system for Kia Voice using AI-based voice synthesis - Voice recording time reduction using AI deep learning	KIA	SW	Global
B2	Location-based Content Recommendation	Content recommendation solution based on location and surrounding environment data - Data Examples: Categorized content data, location and weather data	KIA	SW, SERVICE	Korea
B3	Mobility Ad Effectiveness Analysis	Advertisement effectiveness measurement and analysis solution for mobility - Ad Channel Examples: Rear Seat Entertainment, digital signage for mobility	INNOCEAN	HW, SW, SERVICE	Korea
B4	RSE Content Curation (Rear Seat Entertainment)	Eligible to apply if one of the following requirements are met 1. Voice recognition based content curation using location/weather information 2. 'Watch to Earn / Play to Earn' advertizing solution based on user pattern and propensity	INNOCEAN	HW, SW, SERVICE	Korea
B5	Connected Data Solution	AI based vehicle data analysis and application for customer service development specialized for Kia connected car drivers	KIA	SW, SERVICE	Global

PROJECT LIST (Startups may apply to ONE project only)

THEME 3 : LOGISTICS

CODE	PROJECT TITLE	PROJECT DESCRIPTION	HMG SUBSIDIARY	SOLUTION TYPE	TARGET REGION
C1	Cargo Loading/Unloading	Automated cargo loading/unloading robot system and support solution for sliding doors	KIA	HW, SW	Korea, Global
C2	FMS Solution	Eligible to apply if one of the following requirements met 1. FMS car dispatch and scheduling optimization solution - Data Example: Delivery order, car repairment need, distance remaining, driver condition 2. FMS vehicle route optimization - Data Example: Change in customer order, weather, traffic, order amount per vehicle	KIA	HW, SW	Korea, Global
C3	Cold Chain Integrated Solution	Eligible to apply if one of the following requirements are met 1. Data collection/analysis and real-time monitoring for cold chain specialized EV vehicles - Predicting drivable distance after charging and temperature changes - Monitoring in/external temperature/humidity and door opening 2. Pharmaceutical packages, materials and delivery monitoring solution - H/W Example: Insulator, liquified nitrogen filling, dry ice packaging, temperature detection sensor/RFID tag - S/W Example: Container environment control protocol, report to control division, predict demand and cargo entry/shipment time	KIA	HW, SW, SERVICE	Korea, Global

THEME 4 : CONSTRUCTION

CODE	PROJECT TITLE	PROJECT DESCRIPTION	HMG SUBSIDIARY	SOLUTION TYPE	TARGET REGION
D1	Indoor Location Control	RTLS (Real Time Location System) based location control solution - Bluetooth / UWB based indoor location control for construction sites - BIM file based location display	Hyundai Engineering	HW, SW, SERVICE	Korea
D2	Construction Disaster Prevention	AI and IoT based construction disaster prevention solution - Concrete solidity prediction, microdamage diagnosis, construction abnormality pre-detection	Hyundai Engineering	HW, SW	Korea
D3	Smart Asset Management	IoT sensor installment, remote control and analysis system based on measured data for asset sites - 24 hour monitoring, predictive facility maintenance and energy efficiency management	Hyundai Engineering	HW, SW	Korea

PROJECT LIST (Startups may apply to ONE project only)

THEME 5 : SMART FACTORY

CODE	PROJECT TITLE	PROJECT DESCRIPTION	HMG SUBSIDIARY	SOLUTION TYPE	TARGET REGION
E1	Robot/Human Collision Avoidance	Real-time robot/human collision avoidance control solution inside coworking environment - Motion monitoring, collision avoidance by stop/deceleration	HMC/KIA	SW, SERVICE	Korea
E2	Smart Gripper	Gripper development and control solution for production of multiple unstructured parts	HMC/KIA	HW, SW, SERVICE	Korea
E3	Auto Parts Image Conversion	Auto parts assembly quality digitization solution based on CAD shape (3D) and image (2D) - Create 3D CAD design using auto part images from various angles - Calculate similarity between actual image and 2D projection	HMC/KIA	SW, SERVICE	Korea
E4	Vehicle Demand Forecasting Solution	Forecasting vehicle demand to optimize production output capacity for vendor partners - Estimate production capacity and derive optimal plan based on ordered vehicle volume	HMC/KIA	SW, SERVICE	Korea
E5	Optimal Path Navigating Solution	Optimal path navigation for AMR and AGV - Real-time navigation by device, 2D/3D-based simulation/visualization, and final route verification/evaluation	HMC/KIA	SW, SERVICE	Korea

THEME 6 : MATERIALS

CODE	PROJECT TITLE	PROJECT DESCRIPTION	HMG SUBSIDIARY	SOLUTION TYPE	TARGET REGION
F1	Lithium Metal Battery Solution	Eligible to apply if one of the following requirements are met 1. Li-metal anode manufacturing process technology 2. Li-metal protection technology 3. Electrolyte technology for Li-metal batteries 4. Li-metal cell manufacturing technology	HMC/KIA	HW, SW	Korea, Global
F2	Acoustic Meta-Structure Sound Absorption Material	Acoustic metamaterials that can be molded as interior parts to replace existing vehicle sound insulator - Ex: Moldable metamaterials based on soft materials (fiber, felt, foam material, etc)	HMC/KIA	HW	Korea, Global