



IDUSA 2025

July 2025 | Pittsburgh

Winner-Announcement

Congratulations to the Winners of 2025 IDUSA Pittsburgh International Invention Exhibition.

The 2025 IDUSA Pittsburgh International Invention Exhibition are renowned global competitions hosted by K-12 AI education leader ReadyAI, and supported by World Invention Alliance, IDUSA, and top scholars from Carnegie Mellon University. Hundreds of students and teams from different countries participate in the competition each year. The competition received recognition from the City Council of Pittsburgh and the school districts in Pittsburgh.

The list of winners is as follows:

ELEMENTARY SCHOOL CATEGORY

Gold Award

- Electronic waste intelligent sorting robot(Benjamin Lee)(Horace Mann Elementary School)United States
- Smart Green Energy-Efficient and Secure Tunnel(Aidan Tianrui Lee)(Yew Chung International School of Shanghai)China
- Blind obstacle avoidance guide(Oliver Green)(Belhaven Hill School)United Kingdom
- Indoor fire escape navigation guide mask(Ximei Gui,Xufei Wu,Qunyan Song)(Liyuan Foreign Language Primary School (Shuiwei Campus),Futian District,Shenzhen)China
- A wearable Parkinson's disease tremor assist device(Zhichen Han)(Shanghai Huangpu Luwan No.1 Primary School)China
- New type of automatic cleaning device for street lamps and solar panels(Zihan He,Taiping Cai,Huaie Tu)(Ma Tian Primary School,Guangming District,Shenzhen,China)China
- News intelligent writing pen(Lucas)(Richmond School District)Canada
- Intelligent management device for public resources in scenic spots(Muyi Liu,Yuchen Lin,Fangjie Chen)(Dongzhou Primary School (Group),Guangming District,Shenzhen,China)China
- Multi functional emergency flashlight(Joi Chua)(Nanyang Primary School)Singapore

- Campus student playfulness and chase warning system(Haoxuan Zheng,Aiting Rao,Xiaocong Lin)(Dongzhou Primary School (Group),Guangming District,Shenzhen,China)China

Silver Award

- Intelligent Water Dispenser(Chenyan Lai)(Shanghai Shangde Experimental School)China
- Bathroom mirror anti fog device(Sophie Bauer)(Gymnasium Schloss Neuzelle)Germany
- A CPR assistive device for quick and easy use by ordinary people(Siqi Ding,Haibin Liu)(Shanghai United International School,Hongqiao Campus)China
- Plant Water Steward(Kim Seo-hyun)(Asia pacific international school)Republic of Korea
- Smart Home Controller(Yinying Zhu,Yihong Li,Haibin Liu)(Shanghai Xuhui Jianxiang Primary School,Shanghai Xuhui Aiju Primary School)China
- Intelligent sleep reminder device(James Martinez)(Pine View School)United States
- AI music creation tool(Leo)(Cypress Village School)United States
- Plant growth observation box(Anna)(Chartwell Elementary School)Canada
- Water-saving flower watering device(Maximilian Schneider)(Landheim Schondorf)Germany
- Rainy day shoe cover storage device(David)(Cothill House School)United Kingdom
- Robot Navigation Small Project(Supaporn)(Maha Wiranuwat Primary School, Bangkok)Thailand

Bronze Award

- Desktop automatic sorting and storage box(Arunpha Jaikla)(Bangkok Patana School)Thailand
- Intelligent rainwater collection and irrigation device(Grace Black)(Vinehall School)United Kingdom
- Voice controlled book desk light(Siti)(Meiyimei Elementary School)Singapore
- AI assisted tools for creative writing(Menghan Shi)(Guanggu First Primary School, Wuhan City, Hubei Province)China
- Waste battery recycling and classification storage box(Sophia Wilson)(John Stanford International School)United States
- Bluetooth based backpack anti loss device(Ava)(Ottawa Carleton District School Board)Canada
- Pet toy feeder(Jackson Thompson)(Dreyfoos School of the Arts)United States
- Sitting posture reminder(Peter)(Bilingual primary school "altmark")Germany
- Quickly tie shoe laces(Lee Ye-eun)(Branksome hall asia)Republic of Korea
- Simple ice pack and freshness preservation box(Sirilak Wongwanich)(Public Guanghua School in Rayong Province)Thailand

MIDDLE SCHOOL CATEGORY

Gold Award

- AI interactive visualization of the human circulatory system demonstration teaching tool(Yutong Yang)(Beijing No.80 High School)China
- Clean Energy AI Management System(Isabella Garcia)(Bement School)United States

- Modular intelligent warning helmet synchronized with front steering(Zixin Huang,Manyi He,Wenjun Li)(Foreign Language School of Xi'an Jiaotong Liverpool University Basic Education Group,Futian District,Shenzhen,China (Shang Bu))China
- Medical Imaging Intelligent Diagnostic Assistant(Chloe Nguyen)(Rosseau Lake College)Canada
- The enveloping adaptive mechanical claw(Yuhan Lin)(Beijing No.80 High School)China
- Meteorological disaster warning expert(Lena Weber)(Städtisches Gymnasium Kempten)Germany

Silver Award

- Autonomous driving decision-making brain(Ava Rodriguez)(The Fessenden School)United States
- A Machine Vision-Based Fatigue Monitoring and Alerting Device(ZiHao Zhang)(NACIS Shanghai)China
- Anti electric shock socket protection cover(Nattaworan Suwannaphan)(International School of Bangkok)Thailand
- Smart Water-Saving Shower Reminder(Ethan)(Bishop's College School)Canada
- Bicycle mud and water shielding device for rainy days(Julia)(Gymnasium München)Germany
- Simple spray for anti-fogging car windows (made from natural materials)(Amelia)(Sydney Grammar School)Australia

Bronze Award

- AI Image Analysis Technology in Space Exploration(Elizabeth Davis)(City of London School for Girls)United Kingdom
- Game AI Battle Partner(Jack)(Adelaide High School)Australia
- Urban traffic congestion prediction system(Zidi Zhang)(Tianjin No.35 Middle School)China
- Cycling safety warning backpack(William Smith)(Fay School)United States
- Solar-powered emergency phone charger(Anuwat)(Bangkok Patana School)Thailand
- Umbrella dripping water collection rack in rainy days(Thomas)(Wycombe Abbey)United Kingdom

HIGH SCHOOL CATEGORY

Gold Award

- Smart Collaborative Study Pod(Richard Zheng,Jie Zeng,Jian Wang)(Gungdong Experimental High School)China
- Intelligent Medical Diagnostic Assistance System(Emma Davis)(Thomas Jefferson High School for Science and Technology)United States
- Eco 3D Printer(Banks Zhao)(Sendelta International Academy Shenzhen)China
- Marine Ecological Monitoring AI System(Emily Chen)(Suan High School)Canada
- Design of a Controllable Variable Fluid Test Box(Xinran Dai)(Shanghai Pudong New District Private Hongwen School)China
- AI data analysis model for environmental monitoring(Leonie Müller)(Gymnasium Schloss Neuzelle)Germany
- Multi-terminal Warehouse Management System for Laboratories and Startups(Jiarong Zhang)(NJ-Pioneer Academy)China

- Intelligent Care Necklace for Women(Jiayi Miao)(Guangdong Experimental High School)China
- Data Mining in Quantum Chemistry: Molecular Property Prediction(Chenhao Ouyang)(Minhang Crosspoint Academy at Shangahi Wenqi Private Middle School)China
- AI driven intelligent elderly care service platform(Fann Wong)(Millennia Institute)Singapore
- Design and practice of sports crutches for amputees and football players(Junheng Li)(Alcanta international college)China
- AI based optimization scheme for urban traffic flow(Noah Johnson)(Bronx High School of Science)United States
- Smart socket(Junyang Xiao)(Guangzhou Foreign Language School)China
- Econ AI Wizard(Shengdao Ke,Sixuan Chen,Shanni Li,Ruixian Shi,Yiruo Yuan)(Phillips Academy Andover,The Bishop Strachan School,Burgess Hill Girls,Shanghai New Epoch Bilingual School,Linden Hall School)China

Silver Award

- AI assisted drug development platform(Alexander Liu)(Rosseau Lake College)Canada
- The Rare Disease Intelligent Information Platform(Yiwei Luo)(Guangdong Country Garden School)China
- AI based customer service chatbot(Park Ji-min)(Dae Won Foreign Language High School)Republic of Korea
- Fencing Competition Evaluation System Based on Key Points of the Human Body(Chitchun Wei)(Guangzhou Foreign Language School)China

- AI Decision Algorithm for autonomous vehicle(William Thompson)(Canford School)United Kingdom
- Hillvoice - a visual expression tool for ink painting in Guzheng performance(Shichun Xie)(Guangzhou Foreign Language School)China
- Attention Correction System Based on artificial intelligence Large Models and Machine Vision(Maoxi Ye)(PuDong Experimental High School Affiliated To Shanghai JiaoTong University)China
- Modular emergency lighting and charging backpack(Liam)(Groton School)United States
- Wearable sports posture correction and data recording bracelet(Jo In-sung)(Busan International High School)Republic of Korea
- Intelligent car window sunshade and cooling system combined with solar energy(Somsak)(International School of Bangkok)Thailand

Bronze Award

- Intelligent Monitoring Guardian for Agricultural Diseases and Pests(Grace Trudeau)(Ridley College)Canada
- AI intelligent scheduling system for manufacturing industry(Olivia Brown)(Stuyvesant High School)United States
- Smart Home Energy Butler(Zizheng Tian)(Tianjin Second Yaohua Middle School)China
- Driven environmental resource allocation model(Jacob Singh)(Albert College)Canada
- AI facial recognition security system(Yao Feng)(Zhangjiakou No.1 Middle School, Hebei Province)China

- Master of Intelligent Supply Chain Optimization(Felix Schmidt)(Ernst Kalkuhl Gymnasium)Germany
- AI Inspiration Generator for Artistic Creation(Nora)(Yinghua Independent High School)Singapore
- Intelligent home energy monitoring system based on the Internet of Things(Isabella)(Phillips Academy Andover)United States
- Modular and combined laboratory waste liquid classification and treatment device(Sophia)(Lawrenceville School)United States
- Arduino-based automatic adjustment box for plant growth environment(James)(Stowe School)United Kingdom
- Rapid treatment device for kitchen waste utilizing microbial decomposition(Lee Meiling)(Yinghua Independent Middle School)Singapore

ENTERPRISE CATEGORY

Gold Award

- Nuclear Emergency Core Cooling System (ECCS) Project(Zhaoting Song,Tongzhuang Wang)(STERESI Venture Team)China
- Combined thermal power,photovoltaic,and energy storage frequency modulation optimization control system(Xuliang Jiang,Liu Kuang,Deping Bao,Xiaohu Rui,Bo Ma,Chen Huang)(Huaneng Huaiyin Second Power Generation Co., Ltd)China
- Portable Water Quality Monitoring & Filtration System(Yunfei Ge,Yongfeng Zheng,Shengbin Lu,Liqun Zhang,Honglie Fan,Yang Li)(Huaneng Suzhou Cogeneration Co., Ltd)China

- Study on the effect of reflective film on the efficiency of photovoltaic modules(Benwei Liu,Tonggang Han,Haoyuan Xu, Jiaqi Chen,Yibo Li,Jinyu Cao)(Huaneng Guanyun Clean Energy Power Generation Co., Ltd)China
- Inertia Simulation Control Technology for Converter Retrofit in Photovoltaic Power Stations(Kenan Cao,Chenhui Niu,Daqing Chen,Jing Zhu,Feng Li)(Huaneng Jiangsu Comprehensive Energy Service Co., Ltd)China
- Filter in DCS control system,control method and DCS control system(Rui Shao,Honggang Deng,Xiaoqiang Wu,Linyang Dong,Chi Wang,Junji Lu)(Huaneng Jiangyin Gas Turbine Power Plant)China
- A speedy leaking stoppage method for fuel line(Junling Wei,Yuebing Li,Tianyin Jin,Feng Wang,Hongyu Du)(Huaneng International Power Co., Ltd. Nantong Power Plant)China
- Method for Predicting Pin Breakage of Moving Blade of Fan(Ziqiang Qian,Rixin Guan,Lingwei Yu,Fang Yang)(Huaneng Taicang Power Plant)China