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ART & SOCIAL CHANGE

The challenge for this category is to develop an innovative art projects that meaningfully engage with issues of advocacy, justice, and community-building. The projects may use any art form—visual/conceptual art, photography, new media, video, dance, theater/performance art, music, creative writing, or other forms. Art must be central to the project, and the proposal must reflect an informed understanding of the particular art form(s) being used, as well as of the communities being served.

Artists in Residents (UC Berkeley)
The Suitcase Clinic offers Artists in Residents (AIR), a program that provides homeless and low-income individuals tools and resources in and out of our clinic spaces for clients to engage in, practice, and showcase their growth in various music and art forms.

Digital Arts Engagement Platform (UC Berkeley)
The Digital Arts Engagement Platform aims to revolutionize the way in which U.C. Berkeley students interact with Bay Area arts by creating a digital mobile app and an Internet of things wearable.

Last Night (UC Santa Cruz)
Last Night is an educational card game that players think is about dating, but is actually about consent. While players are busy deciding all the right moves to score a second date, they remain unaware of the story being written from their date's perspective until the very end.

Loom (UC Berkeley)
Loom is an app that allows families and loved ones to collect, curate, and engage with their digital heirlooms with mechanisms rooted in evidence-based dignity therapy and collaborative family therapy.

Museum of Tomorrow (UC Berkeley)
The Museum of Tomorrow is a visually rich, interactive and immersive pop-up museum on climate change targeting Millennials that provides easy everyday solutions. The exhibit is designed to travel to reach a wider audience and would start at UC Berkeley then travel to other UC campuses.

Project គូរ (Project Kour) (UC Santa Barbara)
Cambodian American refugees have had an ongoing mental health crisis for a span of three decades. Obstacles to treatment include language and cultural barriers. As art is a form of therapy that utilizes non-verbal, universal activities, Project គូរ, or Project Draw, hopes to combat trauma through culturally expressive art.

Seeking Symbiosis: Linking art and science through community art design (UC Santa Cruz)
Seeking Symbiosis is a new, ecological design company. In collaboration with citizen artists, they design stylish prints for clothing and accessories of species interactions found in nature, and connect the designs to the research that inspired it through a transmedia website.

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CONNECTED COMMUNITIES

The challenge for this category is to describe a novel solution that leverages the capacity of technology to engage and enhance the wellbeing of communities, campuses, and cities. These approaches should stimulate new thinking to address key physical, social, or economic challenges facing geographic locales ranging from remote places to university settings to global metropolises.

Better Journey (UC Berkeley)
Better Journey provides a platform for organizations to more effectively engage with refugee communities at scale and track key milestones along a refugee's path.

Connecting the Mixtec immigrant community in California through language and technology (UC Santa Barbara)
This project focuses on the development of teaching materials to revitalize the Mixtec language in the immigrant Mixtec community in Oxnard (Ventura County). In order to do so, we will design a digital repository that will contain materials for the development of children's linguistic competence and the adults' literacy practices.

FemTech Make Robotics Workshops (UC Berkeley)
The FemTech Make workshops provide an accessible opportunity to explore robotics and design for anyone, regardless of background or experience level. The workshops act as a supportive environment in which people can ask questions and explore interdisciplinary engineering without judgement or barriers to entry (gender and experience).

HackAbility (UC Berkeley)
HackAbility collects the knowledge of the disability community and public at large in a searchable, and interactive collection of commercial, consumer, and DIY assistive technologies, helping individuals find appropriate technology and giving voice to community/individual needs.

Healthy LiPHE (UC Berkeley)
Healthy LiPHE is a mobile application with a mission to improve sexual health, mental health, and substance use outcomes among disadvantaged youth by connecting them to health content and resources that aid in making informed health decisions.

Let's Get Social (UC Santa Cruz)
Let's Get Social, a virtual-reality platform, tests a user's calling and conviction for social causes through the user's creation of content in the platform.

LexFund (UC Berkeley)
LexFund is an electronic marketplace in Korea for financing litigations by connecting plaintiffs and attorneys to potential investors who can fund their legal claims. The goal of LexFund is to grow into a go-to platform for plaintiffs with claims worth $100,000 to $2,000,000.

MarHub (UC Berkeley)
MarHub's migration management platform transforms the way refugees access information and services throughout their journey. Our chatbot provides refugees with tailored information and connections to NGOs through an automated intake process. Long-term, our crowdsourced platform helps refugees and humanitarian actors work together to provide and evaluate refugee-centered information and services.

nourish.ai (UC Berkeley)
nourish.ai uses conversational artificial intelligence to help students navigate the complex food insecurity ecosystem.

OpenHouse (UC Berkeley)
OpenHouse is the AirBnB for work. It is a community marketplace for micro renting homes during the day. Their vision is to open up underutilized homes to help their hosts get additional revenue while providing flexible workers with a network of distributed coworking opportunities, that are community-driven, affordable and productive.

SwellFund: Catalyzing Millenial Philanthropy (UC Berkeley)
SwellFund leverages technology and behavioral finance principles to transform the experience of donating to nonprofits for young professionals. Users automatically donate a percentage of their paycheck to their personal "giving fund". These funds are invested in impact investments, allowing users to grow their gifts before donating to their favorite nonprofits.

TextTrainer (UC Berkeley)
TextTrainer is a dialog system that trains novice counselors in crisis intervention techniques for helplines. By helping novice counselors practice intervening in a no-risk environment TextTrainer reduces the training burden, improves crisis counseling, and enables crisis helplines to aid more individuals in need.

The Schema (UC Berkeley)
The Schema is the first, all-inclusive virtual experience designed to help the conscious, forward-thinking company bolster their financial and social impact. The Schema, leveraging Virtual Reality and Electroencephalography, will remove human biases to both pioneer true equity and drive the American economy.

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ENERGY & RESOURCE ALTERNATIVES

The challenge for this category is to encourage the adoption of clean energy and resource alternatives that are sustainable and have the potential for broad impact. The climate change crisis calls for carbon neutral solutions at scale as urgently as possible. Proposals may focus on the design, development, or delivery of sustainable energy solutions and can be aimed at campus-based, domestic or international in scope. However, all proposals should clearly demonstrate the relationship between the proposed intervention and its impact on reducing the impacts of global climate disruption.

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Baja Solar Water Heater Project (UC San Diego)
The Baja Solar Water Heater Project aims to bring affordable and efficient thermal collectors to orphanages in developing communities in Baja California, promoting the use of clean, renewable energy, helping them save on gas bills, and helping the environment.

Costa Rica Biogas Project (UC Riverside)
The Costa Rica Biogas Project is carried out by Engineers Without Borders at UC Riverside. We will design and install biogas systems in Pococi, and educate the local residents to maintain these systems. The novelty of our approach is the sustainability in the long term via proper education and technical design.

Energy Management Providing Opportunities for Widespread Emissions Reductions (EMPOWER) (UC Berkeley)
EMPOWER is a modular, affordable, residential energy management system that leverages the predictive power of modern machine learning to simultaneously optimize local energy generation, storage, and flexible loads within a house or microgrid. It integrates weather, PV, and user behavior forecasts to increase efficiency and is retrofittable to existing homes.

Greener Blue Jeans: An Environmentally Friendly Indigo Dye Process (UC Berkeley)
The Greener Blue Jeans project is a strategy for indigo dyeing that does not require the harsh chemicals associated with indigo synthesis and the dyeing process. This method uses a bacterially produced indigo replacement molecule and an enzyme to process the molecule into indigo.

One Village Philippines (UC San Diego)
One Village Philippines is addressing an important problem faced by rural villagers in the Philippines - namely the lack of access to a sustainable source of lighting. The Solar Tiki Torch is an inexpensive, portable, sustainable source of light solution that is intended for local manufacture.

Solar Powered Community Centers (UC Berkeley)
The company builds solar powered community centers in un-electrified areas. The centers provide people access to valuable services at affordable prices on a per use basis – such as cell phone charging, computers and lit study rooms. The solar and storage systems are 3rd party financed and generate 10-20% returns.

Titania Coatings (UC Riverside)
Titania Coatings is developing a coating that passively reduces the amount of NOx pollutants in the air while reducing the energy costs to control the climate in buildings. The coating does this without the need to adapt or renovate existing structures.

Trash to Tiles (UC Berkeley)
Trash to Tiles turns plastic waste in developing countries into affordable, quality roofing tiles using low-energy, simplified machinery that will provide economic opportunities for low-income, local entrepreneurs to set up their own tile production enterprises in urban or rural areas.

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FOOD SYSTEMS

The aim of this category is to encourage the development of innovative solutions or approaches that address challenges in food systems, or that will result in progress or changes to support food security, sustainability and/or justice and health in food systems, and/or equitable access to nutritious food. Proposals may be aimed at campus based program, local/domestic issues or international efforts.

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Acarí (UC Berkeley)
Acarí transforms the hated and feared 'devil fish', invasive to Mexico, into tasty, nutritious products to increase employment in rural fishing communities and provide vital nutrition to Central American refugees across Mexico.

AgroREITcology (UC Berkeley)
AgroREITcology is a vehicle for converting conventional farmland to agroecological management, empowering the next generation of farmers, and creating a replicable model for the transformation of agriculture into a sustainable system.

ArboSol (UC Berkeley)
Saline agricultural wastewater is contributing to soil degradation, which has the potential to destabilize food global systems within 60 years. The proposed ArboSol prevents this by completely separating water and salts, using only sunlight.

Livestock Disease Diagnosis Kit (LIDDIA) (Makerere University)
The LIDDIA team developed an affordable point of care diagnostic device based on microscopic principles for hardware and mHealth technology to support the software running the device. The microscopy hardware operates on a Phone through LIDDIA app that is made up of a database containing standard images for pre-determined samples.

Our Campus Kitchen (UC Berkeley)
What if we could get would-be wasted food to students who need it, and in the process, develop student leadership and food education, all in a time-tested, sustainable business model? What if we can? We already have the food to feed our campus equitably. Let's use it.

PesT Tester (Makerere University)
PesT Tester is a portable, safe, accurate, and affordable device that tests for pesticide residues in agricultural products. It has also got a mobile application that can be used to obtain real time results in cases where one is distant from test location.

Spentwell: A Sustainable Path to Healthy and Affordable Snacks (UC Berkeley)
Spentwell insists that surplus and rescued produce be recovered from the waste stream to be repurposed as healthy, affordable, and environmentally conscious snacks. We source "ugly" fruits and vegetables that would have been wasted to create delicious and affordable health food snacks.

Teleeka (Makerere University)
Supplementing hydrostatic pressure with a sensing system that monitors the activity and detects different stages of bacterial spore germination in fresh foods and triggers UV light to effectively kill the spores at the right moment to preserve food for a very long period.

TRAM project (Makerere University)
Up to 40% of the agricultural produce in low resourced countries are lost due to post harvest losses. The Tram project aims to provide financial freedom and food security to smallholder farmers in Uganda through providing quality food storage systems.

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GLOBAL HEALTH

The challenge for this category is to describe an action-oriented, inter-disciplinary project that would help alleviate a health concern among low-resource communities. Proposals submitted to this category should a) demonstrate an evidence of a widespread health concern faced by U.S. or international low-income populations or low-resource communities, and b) develop a system, plan, or technology that addresses this problem that is both culturally appropriate within the target communities, and appropriate for low-resource settings.

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USAID FROM THE AMERICAN PEOPLE

ALPS: Accelerated Lead Pipe Scale-buildup and the Water Crisis in Flint, Michigan (UC Berkeley)
ALPS is a cost-effective electrochemical method meant to prevent lead from seeping into the water distribution systems via corrosion of lead pipes. By effectively creating a protective layer of oxides within the pipes, this method will help solve health hazards caused by lead in drinking water worldwide, including Flint, Michigan.

Amniotic Wrap (UC San Diego)
Amniotic Wrap strives to alleviate new mothers' postpartum depression symptoms and feelings of detachment by utilizing heart rate feedback to connect mother and child.

Coordinated Emergency Response System (CERS) (Makerere University)
The Coordinated Emergency Response System uses a combination of USSD for communication and e-ridesharing services for quick transportation to get emergency care to victims in Kampala. In so doing, it addresses the problem of lack of an emergency response phone number and an adequate, reliable ambulance fleet in Kampala.

Ecosmart pads (Makerere University)
Many girls in rural Uganda are frustrated with using cloth and banana fibers to manage their periods, and worse, the standard pads on market are very expensive for them to afford. Ecosmart pads are locally upcycled from sugarcane residue, of high quality and affordable to solve this pain point.

Forget Me Not (UC Berkeley)
Forget Me Not is an intergenerational nonprofit organization intended to reduce instances of isolation, loneliness, and depression among the aging population. Forget Me Not partners socially isolated older adults with compassionate high school volunteers in weekly companionship phone calls to create meaningful conversations and forge social bonds.

Loo Lab: Tools to encourage Safe and Efficient Fecal Waste Management Services for Low-Income Urban Households (UC Berkeley)
Loo Lab provides exhauster trucks with the technology they need to streamline their businesses and expand pit latrine emptying services to underserved areas. By connecting and intelligently routing trucks to customer locations, costs can go down, more customers can be served, and less pathogenic waste is released in the environment.

LUMENDA (Makerere University)
Lumenda is an affordable and portable device for rapid and accurate diagnosis of neonatal bacterial meningitis in low resource settings. This is intended to save the lives of thousands of neonates that die of meningitis without being diagnosed and treated due to an expensive process.

Opi-Aid: A Recombinant Protein Biosensor for Better Opioid Screening (UC Berkeley)
Opi-Aid is a low-cost, highly sensitive protein biosensor that reliably detects all opioids in one assay, thus streamlining and improving the current multi-step testing process. By addressing the need for accurate and reliable opioid testing, Opi-Aid will help providers and patients safely alleviate and manage pain.

Oxygen Splitters (Makerere University)
The project aims at improving the current oxygen therapy system for neonates in Uganda. The oxygen splitters that are currently in use are incapable of controlling amount to each neonate and are serious vectors for infections. To address this problem, a centralized panel and pathogen filters will be used.

Sodium Monitoring Patch (SMP) (UC Berkeley)
Oral rehydrating solution has been dubbed "potentially the most important medical advance of this century" for its mitigation of diarrheal effects. However, current delivery of the solution can result in long-term complications for children. The Sodium Monitoring Patch (SMP) aims to prevent this through continuous monitoring of serum sodium concentration.

SurgeCare (UC Berkeley)
Surgical site infections (SSI) are far more common in low-resource settings than in developed countries. Current standards for reprocessing surgical tools in these settings do not properly clean and decontaminate surgical equipment. Introducing a locally sourced device capable of effectively cleaning surgical instruments can decrease the rate of SSI.

Tisya (UC Berkeley)
Tisya is a therapeutic yoga and holistic wellness platform that creates personalized yoga/meditation routines and food/herb recommendations for people suffering from chronic conditions such as high blood pressure, diabetes, lower back pain, stress and obesity.

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HARDWARE FOR GOOD

The challenge for this category is to either: a) describe plans to develop an innovative hardware technology, or b) design a technology-led solution that uses an existing hardware/product in a novel way. These solutions should solve a major societal need, have high potential for impact, and/or improve the lives of individuals, ideally at low-cost. Applications may focus on a wide range of areas, including: health, clean energy, assistive mobility, agriculture, education, responses to natural and manmade disasters, household and commercial robotics, and economic opportunities for low-income communities.

AUTODESK FOUNDATION

AsphyxiAlert (UC Berkeley)
We help children and adults with tracheostomy tubes avoid asphyxiation from accidental tube dislodgement or blockage by providing an early warning system that remotely alerts caregivers in the home and hospital.

Development of Point-of-Care Blood Coagulation Monitoring for Trauma Intervention (UC Davis)
No effective blood coagulation monitoring technology exists for use in civilian and military trauma environments. The paucity of blood coagulation diagnostics results in medics 'blindly' treating patients, often leading to non-therapeutic or toxic dosing. A novel point-of-care coagulation diagnostic device is proposed here to address this profound medical need.

HeadTones (UC Riverside)
Gradual hearing damage is difficult to identify because the changes in hearing are often minute. This leads to many people with hearing damage not receiving the necessary treatment. HeadTones are headphones that can track a user’s hearing ability, inform them about hearing loss, and provide useful data to healthcare providers.

IMAGO: Eliminating waste in the operating room, with object recognition (UC Berkeley)
Currently, inefficient and labor-intensive methods to track surgical tool utilization in the operating room costs the US healthcare system ~$4B/year. By introducing computer vision and image recognition technology, IMAGO will automate the tracking of surgical tools, eliminate wasteful practices, and enable hospitals to provide higher standards of patient care.

QuickStitch (UC Berkeley)
The QuickStitch device automates parts of the suturing process to enable incisions through multiple layers of tissue to be closed more efficiently than traditional hand-suturing methods. This innovative approach to wound closure can be utilized in closure of any layer of tissue in a variety of open surgical procedures.

The Concertina (UC Berkeley)
The accidental removal of inflated urinary catheters due to postoperative delirium is a problem prevalent among elderly patients. The design of the Concertina catheter aims to prevent urethro-genital trauma caused by this occurrence by deploying a mechanism allowing for the automatic deflation of the anchoring balloons in the urinary catheter.

TremorEnd (UC San Diego)
10 million patients in the US suffer with the debilitating movement disorder, Essential Tremor, which causes involuntary shaking of the hands. Based on successful clinical studies, TremorEnd's team of medical professionals and engineers has designed a low-cost and non-invasive wearable to reduce tremors by up to 75%.

VisionCycle (UC Berkeley)
VisionCycle is an adaptive, scalable, and effective approach to solving global waste management issues through computer vision and machine learning.

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WORKFORCE EDUCATION & DEVELOPMENT

The challenge for this category is to develop workforce solutions that provide individuals with the technical knowledge, practical skills and readiness necessary to secure employment and become self-sufficient. Additionally, proposals may be focused on novel processes, services, or technologies aimed at developing the capacity of individuals, corporations, academic institutions, and governments to meet the challenges and demands of the 21st century economy and its workforce.

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Helix (UC Berkeley)
Helix is a non-profit organization working to increase representation of underserved populations in the field of health and medicine. The program increases availability of medical education through its extensive curriculum, offering enriching experiences through biological and clinical skill labs, CPR certification, and opportunities to work with successful health professionals.

LEAD (UC Berkeley)
LEAD is a long awaited response to the inadequacy of skills in the African workplace. Rooted in offering an education that equips African students with the skills needed today and most especially those needed tomorrow, LEAD brings general education, entrepreneurship, and essential technical skills to the tips of students' fingers.

Liveli-Stays (UC Berkeley)
Due to lack of employment opportunities, many people migrate from the Mountainous region of Uttarakhand to other parts of India. Liveli-Stays is a public private partnership that aims to train villagers with the necessary skills of hospitality and financial literacy to develop sustainable livelihoods for communities in the Himalayas.

Opportunity Through Data (UC Berkeley)
The project aims to provide technical skills such as data analysis to women in prison to help them find jobs and reduce recidivism. The project utilizes university students and corporate partnerships to bring qualified teachers to prisons and open career opportunities in a high demand sector to program participants.

Refu-Chain: Blockchain based skill verification to help refugees socially integrate in destination countries through finding skill based work (UC Berkeley)
To find employment, refugees need to prove their skill set. However with no access to papers or documentation, this is often a major challenge. Refu-chain is a blockchain-based solution that helps refugees verify their skill and find employment by working with institutes in the source and destination countries.

SEPET (Special Education Professional Enrichment Training) (UC Riverside)
The SEPET Team's Big Idea is to provide quality and relevant professional training via a convenient and economic mobile learning program to the first generation of para-professionals, general education teachers and resource teachers in Mainland China.

UROC – Demystifying the Research Process: Decolonizing Methods in Academic Research (UC Berkeley)
UROC (Underrepresented Researchers of Color) strives to build a community of researchers of color. We provide students with necessary tools and resources – such as mentorship, panels/mixers, research methodology and decolonizing research workshops – for students to envision research that is relevant to their identities and communities.

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SCALING UP BIG IDEAS

The challenge for this category is for previous Big Ideas award winners to (1) highlight key achievements or progress made in implementing their original winning project idea, (2) document lessons learned in initial implementation, and (3) describe plans to revise their venture's design or scale up their model. For the purposes of this category, Scaling Up is defined as reaching a new geographic area or underserved population, or adding to the scope and/or services of the original project in the same geographic area.

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Early Preeclampsia Detection (EPED) Strip (Makerere University)
EPED Strip is a urine-based point-of-care early diagnostic test strip for preeclampsia which expecting mothers can use to self-screen against the condition. This is geared toward reducing the global burden of preeclampsia by saving lives of thousands of mother through empowerment and enabling women to self-screen.

ElectroSan - Reimagining Waste for Kenya (UC Berkeley)
Affordable sanitation in the developing world can be achieved by making value out of human waste. ElectroSan, in partnership with Sanergy, produces cheap organic fertilizer from urine, generating revenue to pay for high quality toilets in urban slums and treatment of waste.

Husk-To-Home (UC Riverside)
A student-led organization from the University of California, Riverside, Husk-to-Home is working to solve the problem of weather damage on homes with an innovative home siding.

MindFull Technologies (UC Irvine)
MindFull is an evidence-based, data-driven, socially connected, and community-integrated mood management app.

People's Media Advocacy, Asia (UC Santa Cruz)
People's Media Advocacy, Asia teaches organized Filipino and ASEAN workers how to project labor issues into the public sphere using social media. At the same time, PMAA empowers the unorganized worker to speak up about their rights, giving them a voice and connecting them to organizations that make a difference.