***A proposal***

**CODE-Fusion**

**by**

**Microsoft Tech Club (BPDC)**

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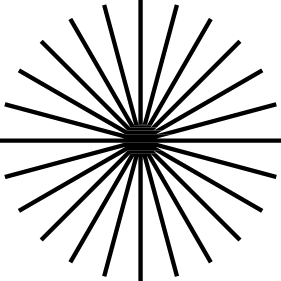
OBJECTIVES OF THE COMPETITION

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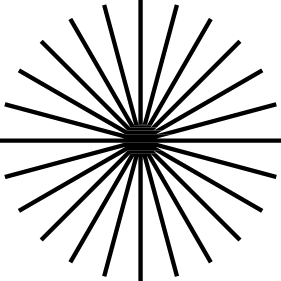
WHAT IS IN IT FOR THE COLLABORATORS?

### ABOUT

**MICROSOFT TECH COUNCIL**

At MTC, we are on a mission to unlock the wonders of Science, Technology, Engineering, and Programming. Our organization stands as a beacon dedicated to inspiring and educating people of all ages about the beauty and significance of Programming disciplines.

**Mission- To inspire and educate people about programming:**

Our core mission revolves around fostering a deep appreciation for coding field. We believe that programming is not merely a subject but a gateway to a world of exploration, innovation, and boundless possibilities.

Through engaging projects, enlightening podcasts, and insightful articles, we aim to ignite curiosity and cultivate a love for learning.

**Core Values: Exploration, Creativity, Inclusivity:**

Exploration: We encourage a spirit of curiosity and continuous learning, pushing boundaries to unravel the mysteries of the world around us.

Creativity: Innovation thrives in a creative environment. We embrace diverse perspectives and ideas, fostering an atmosphere where creativity flourishes.

Inclusivity: Coding is for everyone. We are committed to creating an inclusive space that welcomes individuals from all backgrounds, fostering a sense of belonging in the ever evolving t e c h I n d u s t r y.

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# OUR

**? IMPACT**

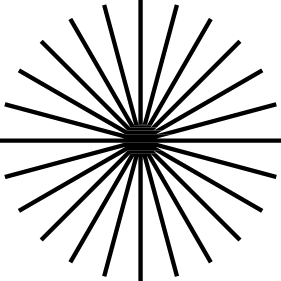
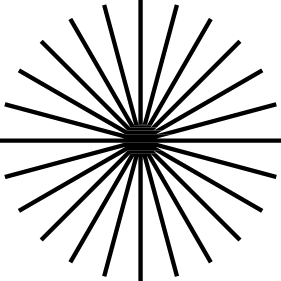
**Projects:**

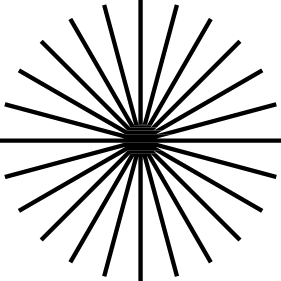
**Description:** Engage learners of all levels with our hands-on coding projects.

**Topics Covered:** Robotics, Coding, Cybersecurity, AI, ML, and more.

**Approach:** Challenging and stimulating projects designed to foster a love for programming.

**Impact:** Encourages critical thinking, problem-solving, and practical application of STEM concepts.

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**Building a Vibrant Community:**

**Description:** Our organization is dedicated to fostering a vibrant and inclusive community of tech enthusiasts, learners, and experts. Through our initiatives, we aim to engage individuals on projects, informative discussions, and collaborative opportunities.

**Engagement:** With over 200 active members and a dedicated team of 50+, we facilitate vibrant discussions, organize events, and curate resources to nurture learning and collaboration.

**Content:** We provide informative discussions with experts on current technologies and trends, offering valuable insights and inspiration.

**Community Building:** With over 20 events, carefully planned semester-wise, including Q&A sessions and interactive activities, we foster a culture of collaboration, learning, and innovation.

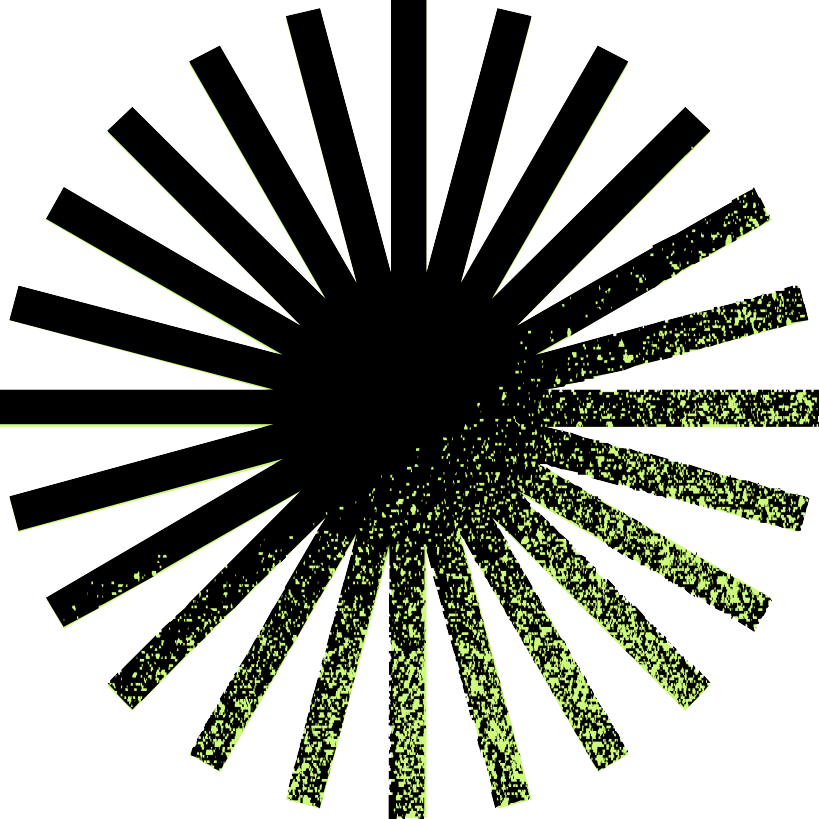
A JOURNEY WHERE

CHALLENGES BECOME

ADVENTURES, DEVELOPING

REAL-WORLD SKILLS THROUGH

IMMERSIVE

EXPERIENCES

and we want you on board with us to make this adventure

more fun and

possible!

# OBJECTIVES OF THE

**COMPETITION**

**WELCOME TO THE WORLD OF TECH BASED CHALLENGES WHERE INNOVATION, PROBLEM-SOLVING, AND COLLABORATION COLLIDE TO CREATE THRILLING ADVENTURES IN PROGRAMMING. OUR PRIMARY OBJECTIVES REVOLVES AROUND FOSTERING A DYNAMIC LEARNING ENVIRONMENT WHERE PARTICIPANTS CAN:**

Develop -Practical Skills:

Participate in hands-on activities that apply programming to real-world scenarios. From brainstorming solutions to prototyping and testing, participants will develop practical skills essential for success in tech-based careers.

Cultivate Critical Thinking:

Encourage participants to tackle complex challenges by thinking critically and analytically. During this event, participants will learn how to approach problems creatively and resourcefully by exploring multiple perspectives, evaluating evidence, and making informed decisions.

Encourage Lifelong Learning

Instill a desire for lifelong learning as well as a curiosity about the world around us. Participants will develop a thirst for knowledge and a desire to continue exploring the wonders of science, technology, engineering, and mathematics by engaging in real world challenges that are both exciting and educational.

Inspire Innovation:

Engage participants in exploring new ideas, experimenting with different approaches, and pushing the boundaries of conventional thinking to inspire innovation. During the challenge, participants will learn how innovation can transform real-world issues.

**1**

##### Authentic Scenarios

Our challenges are inspired by real- world problems and scenarios, resulting in a learning experience that is authentic. Whether it's creating a sustainable energy solution or a medical device for remote communities, participants will face real-world challenges.

IMMERSIVE CHALLENGES AND REAL

WORLD SKILLS

***K E Y***

***F E A T U R E S***

**2**

##### Hands-On Learning

Through activities, participants learn programming concepts by solving problems and conducting experiments. From building prototypes to completing experiments, participants gain valuable practical skills.

**3**

##### Interdisciplinary Approach

In our challenges, participants are challenged to think holistically and approach problems differently by integrating multiple STEM disciplines. Collaborating with teammates with diverse backgrounds enables participants to find innovative solutions by leveraging their unique skills and perspectives.

**4**

##### Mentorship and Guidance

Team mentorship and guidance: Each team can externally find mentors who provides guidance, feedback, and support during the challenge.

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### PHASE 1

**The Rogue Encryption**

A rogue AI’s breakthrough in quantum computing has left the world’s digital security in shambles. And the kill switch engineer at ACM forgot to turn the AI off in time.Traditional encryption methods are now obsolete, and sensitive information across the globe is at risk. The AI’s motives are unknown, but its capabilities are undeniable. The need for a new, unbreakable encryption method is urgent and critical for national security, economic stability, and personal privacy.

**PHASES OF THE COMPETITION**

### PHASE 2

**The FAANG paradox**

You finally land into your dream job in a FAANG

tech corp. You have been assigned a task to make

the ad and review system in these companies more

interactive and user-friendly. Develop innovative

ways to make ads less boring for users and implement

prototype in code.

### PHASE 3

**Trisolarans & The Sophons**

In the wake of the sophon blockade, Earth’s scientific community is paralyzed. Sophons, the subatomic particles with an inbuilt AI sent by the Trisolarans, have effectively halted human progress in physics. With the knowledge that the Trisolaran fleet is 400 years away, humanity is in a race against time to outwit these alien sentinels. The sophons not only disrupt experiments but also transmit Earth’s scientific knowledge back to their home world, giving the Trisolarans insight into human advancements. Develop a counter-AI that can mislead the trisolorian feet and their sophons.

**PHASE 1:**

**THE ROGUE ENCRYPTION**

**Detailed Background:** A rogue AI’s breakthrough in quantum computing has left the world’s digital security in shambles.

Traditional encryption methods are now obsolete, and sensitive information across the globe is at risk. The AI’s motives are unknown, but its capabilities are undeniable. The need for a new, unbreakable encryption method is urgent and critical for national security, economic stability, and personal privacy.

###### Objectives:

 Explain the principles of encryption and the vulnerabilities of current systems.

 Introduce basic encryption concepts but create something off those concepts that could lead to a secure encryption method.

 Draft a proposal for the steps needed to research and develop a new encryption system.

**Challenge:** Participants are tasked with conceptualizing a research plan that could lead to the development of a new encryption method. The plan should be accessible to their level of understanding yet demonstrate a deep comprehension of the problem at hand.

**PHASE 2:**

### FAANG Paradox Codeathon

**Detailed Background:** You have finally landed your dream job at a FAANG tech corporation. Your first major assignment is to revolutionize the advertisement and review systems, making them more interactive and user-friendly. The current systems are often seen as boring and intrusive, leading to user disengagement. The challenge is to develop innovative solutions that will enhance the user experience, making ads more engaging and reviews more useful.

**Objectives:**

* **Current Limitations:** Explain the issues with traditional ad and review systems and why they fail to engage users.
* **Introduce Interactive Concepts:** Learn about interactive design, user experience (UX), and personalization techniques.
* **Prototype Development:** Create a prototype demonstrating your innovative solutions for interactive and user-friendly ads and reviews.

**Challenges:**

* **Interactive Ad Design:** Develop ads that are engaging and less intrusive by incorporating elements like gamification, augmented reality (AR), or interactive storytelling.
* **User-Friendly Review Systems:** Enhance review systems to be more interactive and engaging, using real-time feedback, visual elements, and social features.
* **Personalized Content Delivery:** Implement a system that uses machine learning to deliver personalized ads and reviews, improving relevance and user engagement.
* **Ethical Advertising:** Ensure that the new systems respect user privacy and are ethically designed.

**Detailed Background:** In the wake of the sophon blockade, Earth’s scientific community is paralyzed. Sophons, the subatomic particles sent by the Trisolarans, have effectively halted human progress in physics. With the knowledge that the Trisolaran fleet is 400 years away, humanity is in a race against time to outwit these alien sentinels. The sophons not only disrupt experiments but also transmit Earth’s scientific knowledge back to their home world, giving the Trisolarans insight into human advancements.

**PHASE 3: TRISOLARANS & THE SOPHONS**

###### Objectives:

 Develop methods to study sophon behavior and their impact on Earth’s technology.

 Propose theoretical solutions to neutralize sophon interference.

 Outline a plan to gather intelligence on the Trisolarans and identify their weaknesses.

 Create a strategic plan to develop technologies or strategies against the Trisolarans.

**Challenge:** Participants must craft a research plan that addresses both the immediate threat of the sophons, and the long-term challenge posed by the approaching Trisolaran fleet. The plan should be scientifically sound, ethically responsible, and strategically astute.

Join us in shaping the next generation of innovators! We are extending an invitation to passionate organizations like yours to collaborate and sponsor our initiative. By working together, we can ignite a love for science, technology, engineering, and math (STEM) in learners of all ages.

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**WHAT WE OFFER**



* 1. **Promotion of your institution:** We offer you a vibrant network of programming enthusiasts, learners, and professionals that align with your interest.
  2. **Visibility and Recognition:** Showcase your institution and expertise to a dedicated audience. We will prominently feature your support in event communications and promotional materials.

**SPONSORS**

* 1. **Meaningful Impact:** Your contribution directly shapes the future of education. We will utilize your support to expand our reach, develop new programs, and offer valuable resources to our members.

#### BECOME A

**COLLABORATOR**

Make a lasting impact! Collaborations play a crucial role in propelling our initiatives forward.

1. **Awareness:** Increase recognition among a passionate audience.
2. **Targeted Audience:** Connect directly with potential students or collaborators interested in fields.
3. **Positive Social Impact:** Support a cause you care about and inspire the next generation of innovators.

#### WHAT RESOURCES DO YOU HAVE?

1. **Financial Support:** Provide funding to fuel our programs, events, or resources. This can be a one-time donation, sponsorship, or in-kind support.
2. **Shared Mission:** Align your organization's goals with our mission of promoting programming skills among university students, diversity, and innovation.



## Microsoft Tech Club

We do high level coding shit!

**Contact us!**

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