# The Extended Reality Technology Center

The **Extended Reality Technology Center** aims to boost research and development of augmented and virtual reality technologies, catalyzing their adoption in industry and society at large. Key applications include health care, industrial training, entertainment, and communication.

CMU is establishing a new research center around the topic of Extended Reality (XR) Technology, called the Extended Reality Technology Center (XRTC). The XRTC has three main thrusts:



The **research** thrust will bring together faculty from across multiple disciplines to tackle new topics in XR. The **education** thrust will focus on developing a new educational curriculum at all levels including undergraduate, graduate and executive. The **community** thrust will focus on bringing new technology to the public's attention to encourage adoption and participatory design.

Carnegie Mellon is world renowned for its innovations in the technologies driving the evolution of XR — mobile computing, new AR-chipsets, lower development costs, wireless broadband, computer vision, machine learning and user interfaces. Our advanced position in basic and applied research in XR is fostered by our inherent multi-disciplinary nature and the critical mass of researchers working in this field. We look forward to working with you on pioneering the next transformation in human computing.

### **Carnegie Mellon University** School of Computer Science

**Carnegie Mellon University** The Robotics Institute

#### JOIN US IN SHAPING THE FUTURE OF EXTENDED REALITY!

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### Research

XRTC addresses core challenges in our research, including computer vision, computer graphics, machine learning, display and sensing technology, and human-computer interaction. Faculty members research a wide variety of topics, such as:

- digitizing humans and their behavior
- wearable sensing technologies
- haptic interfaces
- distributed XR systems
- display hardware
- user modeling
- computational user interfaces.

Advancements in these areas drive the technological development for future everyday XR applications, as well as fulfilling needs in specialized topic areas such as digital twins, manufacturing, healthcare, entertainment, and the industrial metaverse.

XRTC and its partners advance the state of the art in XR through two main research vehicles:

#### Seed-based Research

Researchers can propose specific research projects seed-based research. These projects are reviewed, funded and supported by XRTC, in close collaboration with its partners.

#### Needs-based Research

Partners work with XRTC to define research priorities, which get distributed to the community through a call for proposals - needs-based research. Researchers are asked to respond with proposals, which then get reviewed, funded and supported by XRTC in close collaboration with its partners.

## **Sponsorship** We invite industrial and governmental partners to join us!

Benefits	Founding Sponsor	Strategic Sponsor	Base Sponsor
Acknowledgment of Sponsorship	•		
Sponsors-only Website Access	•	•	
Invitation to Annual XRTC Partners Conference	•	•	•
Invitation to Presentations and Events	•		
Recruiting Assistance	•		
XRTC Seed Grant: Research Review Committee	•	•	
XRTC Request for Proposal: Research Steering Committee	•		
XRTC Advisory Board			
Yearly Fee	\$ <b>400,000</b> /yr	\$ <b>250,000</b> /yr	\$50,000/yr
Sponsorship Commitment	3 Years	1 Year	1 Year

#### **ADDITIONAL SPONSORSHIP OPPORTUNITIES:**

Masters Capstone Sponsorship Fee varies by program

**Sponsored Research Project** \$150,000 (minimum)

Named Fellowship \$50,000 (minimum)

Visiting Researcher \$85,000/year/visitor

**Executive Education** Fee varies by engagement

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## **Sponsorship Benefits**

- 1) Acknowledgment of Sponsorship: XRTC will identify and acknowledge the Sponsor as a partner of XRTC by displaying the Sponsor's name/logo and homepage website address (and/or link thereto) and other agreed-upon identifying information on the XRTC website and other XRTC marketing and promotional media and materials in which its funders are referenced, if any, including its Annual Partners Conference materials/signage, in a manner (placement, form, content, etc.) reasonably determined by XRTC in its sole discretion.
- 2) Invitations to Presentations and Events.: During the term, the Sponsor will have access to any and all live and/or archived seminars made available by XRTC to Sponsors through the "Sponsors-only" portions of the XRTC website or partner portal.
- **3)** Website Access: During the term, the Sponsor will have access to any and all "Sponsors-only" portions of the XRTC website or partner portal.
- **4) Recruiting Assistance:** XRTC will assist the Sponsor with recruiting Carnegie Mellon students by forwarding relevant job postings and recruiting events to internal email lists and websites (as and when determined by XRTC) during the term.
- **5) Invitation to Annual Partners Conference:** XRTC holds an Annual Partners Conference during which XRTC reviews its research and education. Up to two (2) of the Sponsor's employees (unless a larger number is permitted by XRTC, in its discretion) may attend each annual partners conference occurring during the term.
- 6) XRTC Seed Grant: Research Review Committee: The Sponsor will have the opportunity to guide XRTC research through participation (one seat per Sponsor) on a review committee along with Carnegie Mellon faculty. The review committee will review XRTC Seed Grant proposals and provide feedback on areas of research focus and priority.
- **7) XRTC Request for Proposal: Research Steering Committee:** The Sponsor will have the opportunity to guide XRTC research through participation (one seat per Sponsor) on a steering committee along with Carnegie Mellon faculty. The steering committee may suggest relevant research topics within the fields of AR, VR, and MR to be shared with University Faculty in the form of an RFP (to obtain funds from the XRTC). The steering committee may also review XRTC faculty RFP submissions and provide feedback on which proposal(s) should receive funding.
- 8) XRTC Advisory Board: Founding Sponsors, along with XRTC faculty leadership, have the opportunity to formally influence the direction and activities of the XRTC through participation (one seat per Sponsor) on the XRTC Advisory Board. They can provide feedback and advice on the overall design, direction and implementation of the research and activities of the XRTC. The Advisory Board meets at least annually, typically at the Annual Conference.

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