

# Robotics Workshop: Unravelling Arduino and its Applications

Organised by: Cyber Club, Sunbeam Lahartara in Collaboration with Robotics Club, IIT BHU

Date: **Tentatively, 29th September 2023**

Venue: **ATL Lab, Sunbeam Lahartara**

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Inviting all tech enthusiasts and future roboticists! The Cyber Club of Sunbeam Lahartara, in collaboration with the prestigious Robotics Club of IIT BHU, is excited to announce a hands-on, engaging workshop focused on Arduino, its functionalities, and its applications.

## Workshop Goals

The primary objective of this workshop is to offer a comprehensive understanding of Arduino, its features, and its wide-ranging applications. Whether you are a beginner with a keen interest in robotics or an experienced technophile aiming to enhance your knowledge, this workshop promises to provide valuable insights and practical experience to all participants.

## Workshop Outline

1. **Arduino Basics:** Gain an in-depth understanding of Arduino, its components, and their functions.
2. **Starting with Arduino:** Learn about Arduino programming, libraries, and the IDE, complemented by hands-on sessions.
3. **Arduino in Robotics:** Explore the applications of Arduino in robotics, focusing on its role in controlling sensors, motors, and other elements.
4. **Real-world Applications:** Uncover a variety of real-world applications where Arduino is used, from home automation to industrial robotics.
5. **Hands-on Project:** Apply the knowledge acquired to a mini-project, where you'll design, code, and debug your own Arduino-powered system.

## Why Should You Attend?

- **Expert Guidance:** The workshop will be facilitated by experienced mentors from the Cyber Club of Sunbeam Lahartara and the Robotics Club of IIT BHU.
- **Interactive Learning:** Participate in hands-on projects and engaging sessions that encourage a practical understanding of concepts.
- **Networking Opportunities:** Connect and collaborate with individuals who share the same passion for technology and robotics.
- **Certificate of Participation:** Receive a certificate co-signed by both the participating clubs, enhancing your professional credibility.