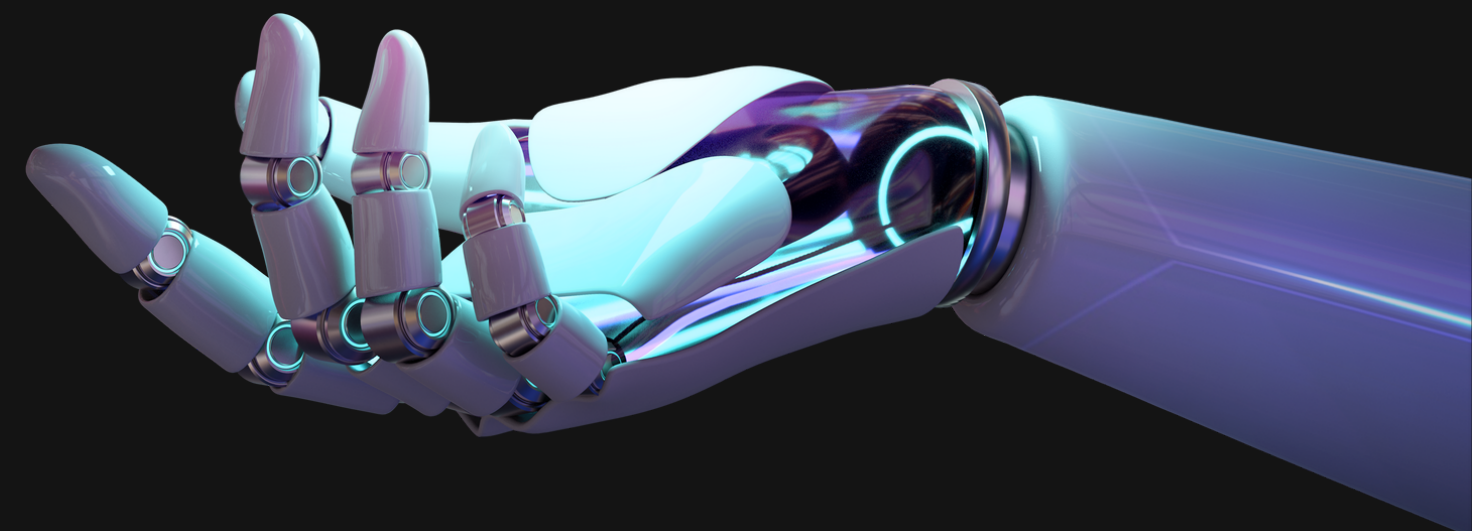
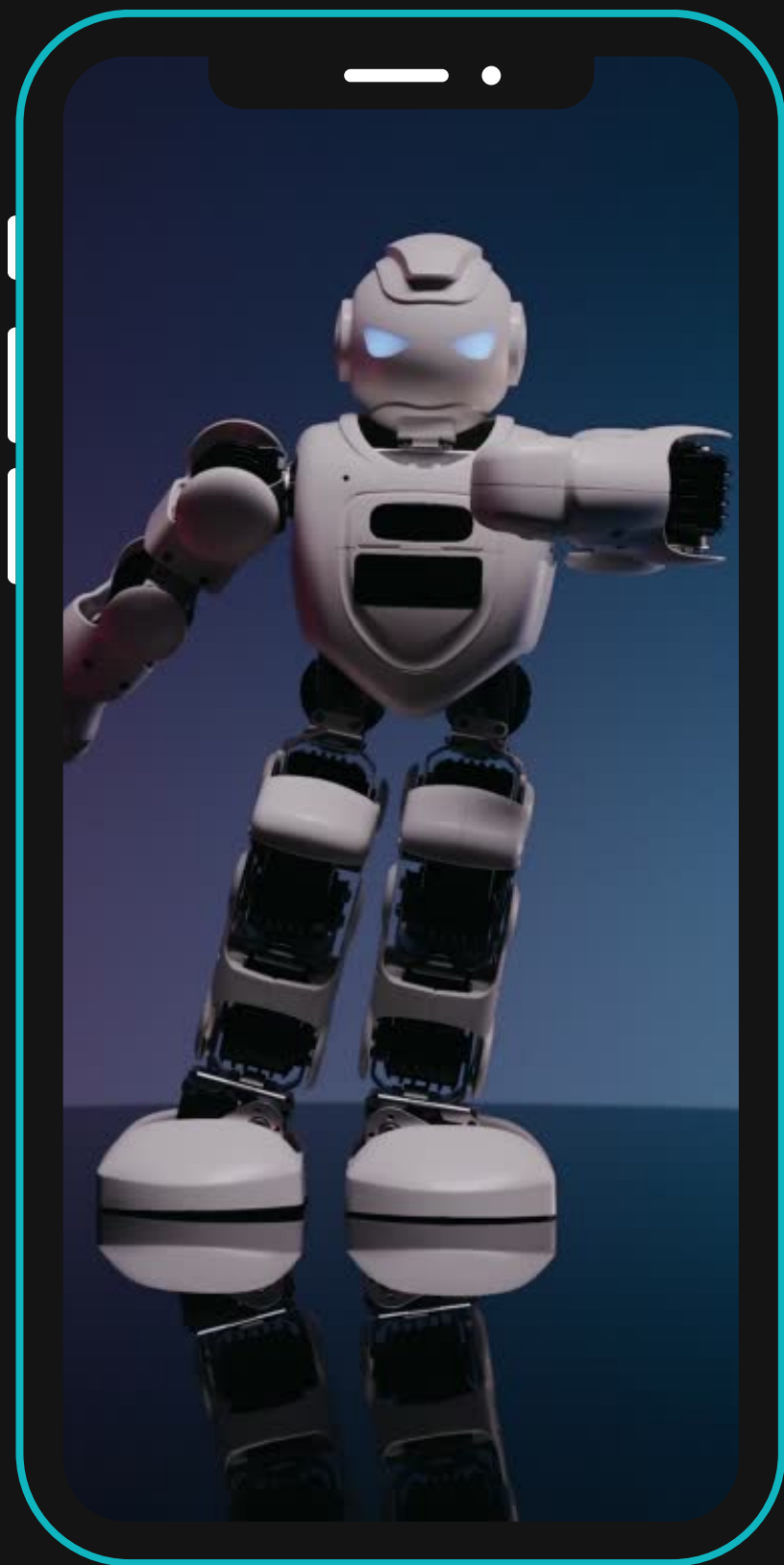


ROBOTICS CLUB  
IIT BHU, VARANASI  
**SUMMER CAMP 2023**





# INTRODUCTION

Robotics Summer Camp 23 is designed to push your boundaries, foster innovation, and enhance your problem-solving skills. Through practical exercises, hands-on projects, and collaborative activities, you'll explore new frontiers of knowledge and develop a deeper understanding of robotics.

**LET'S  
DIVE  
IN !!**





# PHASE I

## Before Endsem

### WEEK 1

#### Pybullet and Controls

- Introduction to Pybullet
- Basic Robot Control

### WEEK 2

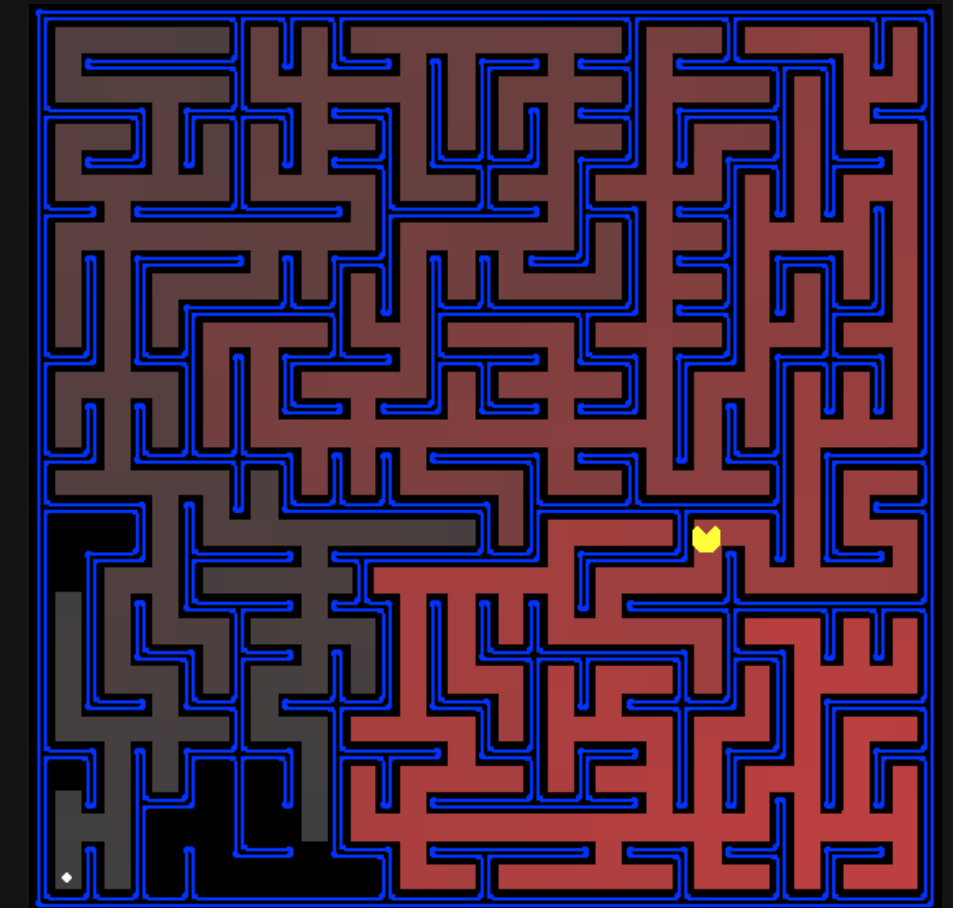
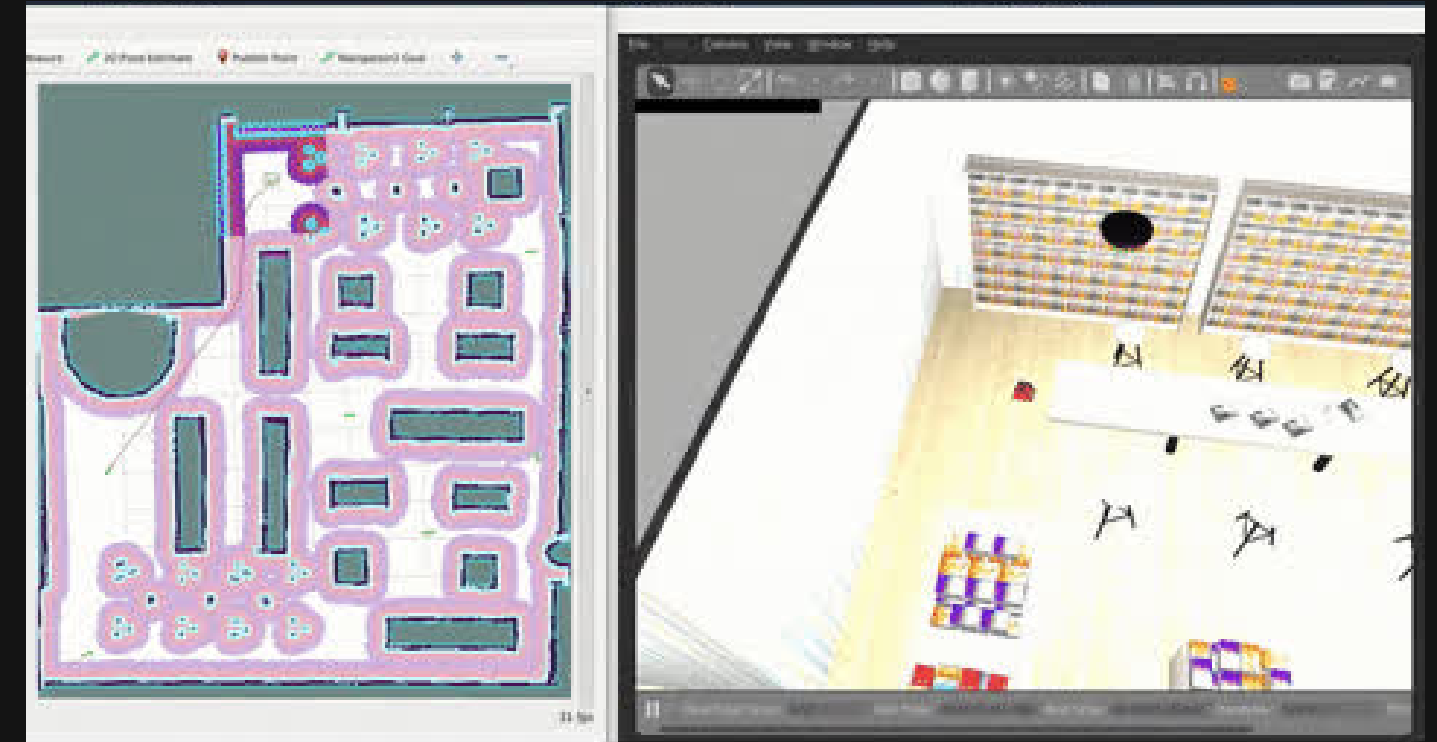
#### ROS Basics and SLAM

- ROS Communication
- Search Algorithms
- Mapping Techniques

### WEEK 3

#### Autonomous Navigation

- ROS Navigation Stack
- Cool Tasks





# PHASE II

## After EndSem

### Week 1

#### Buffer Week and Hardware

- Buffer Week for previous tasks
- Optional hardware design track

### Week 2

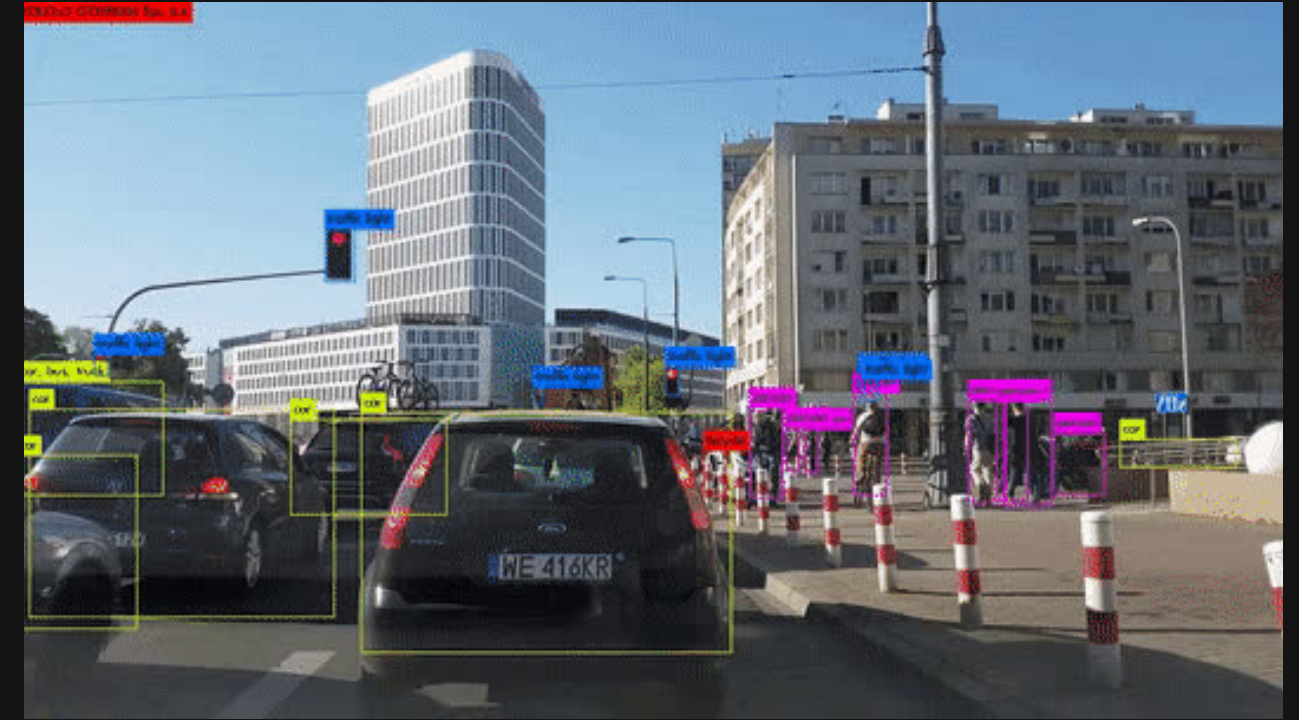
#### Basics of Neural Networks

- Introduction to neural networks
- Basics of PyTorch.
- Intro to CNN

### Week 3

#### Computer Vision

- Deep Dive into Computer Vision
- Cool tasks using simulators



# Software Guide

- Dual Boot with Ubuntu 20.04 LTS
- Install ROS Noetic



Ubuntu 20.04 LTS



ROS



# ALL THE BEST !!

