Assalam o Aliakum. I am Hamza Farooq and my groupmate is Komal Shehzadi. I am going to present about the Development Robotics and Artificial Intelligence.

Developmental robotics (also known as epigenetic robotics or ontogenetic robotics) is a highly interdisciplinary subfield of robotics in which ideas from artificial intelligence, developmental psychology, neuroscience, and dynamical systems theory play a pivotal role in motivating the research. Instead of trying to produce a program to simulate the adult mind, why not rather try to produce one which simulates the child's? If this were then subjected to an appropriate course of education, one would obtain the adult brain. It is reasonable to assume that development is mechanistically crucial to emulate such intelligence in machines and other human-made artifacts.

This category encompasses robots that learn with human interaction, human negotiation and other social interactions. Examples are Social robots and virtual assistants. Cozmo is a socially active, machine learning based robot. It learns with human interaction. It can play games with humans. Provided with built-in integrated development environment, one can use code blocks to program the robot. Used in learning and exploring the programming skills. As an Education robot, it played its role very well. It is a little guy with his own mind.

Non-social interaction that gather data from sensors to perceive their surroundings and no direct human-like interaction. Examples include perceptual categorization and navigation. Dobot M1 is a professional robot arm loaded with sensors. It can be a 3d-printing machine, Laser engraver and hand tool. Multiple robot arms can be connected and synchronized for a group task. Multiple dobots can be connected to perform a single task. The arms interact with each other just like a group. It has precision and repeatability of 0.02mm. Repeatability means returning to the previous position with a significant precision.

Agent-centered sensorimotor control is exploration of morphological changes of bodily capabilities. Examples are skill acquisition robots. Scorpio is an agent-based robot. It supports livestream over Wi-Fi. Computer Vision algorithms are loaded on a PC-based IDE. Interaction commands are transcoded over the internet so that morphological learning against the environment perception can be easily automated. . One popular application of the robot is detection of suspicious activity based on its environment learning. Scorpio is portable, 3d-printed and amazingly fast robot as compared to other locomotive bots.