GUIDE ROBOT

Background

A **telepresence robot** is a remote-controlled, wheeled device that has wireless internet connectivity. Typically, the **robot** uses a tablet to provide video and audio capabilities.
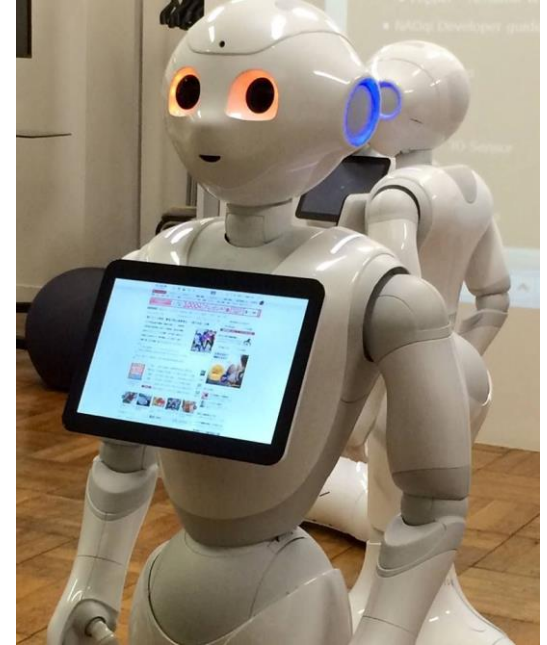
Background

❑ Guide Robot (Robot Assistant)

Airport Guide '**AirStar**'

Café Guide '**Pepe'**

What we make
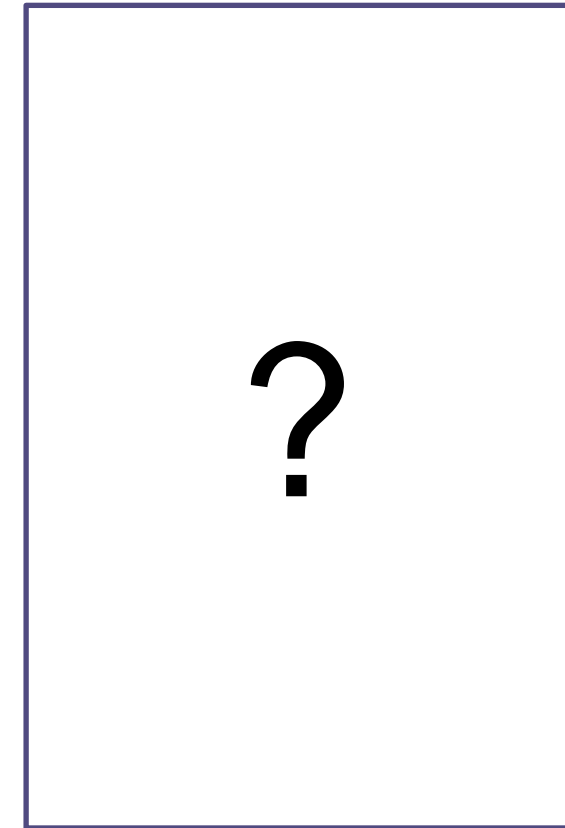
❑ Types of Guide Robot
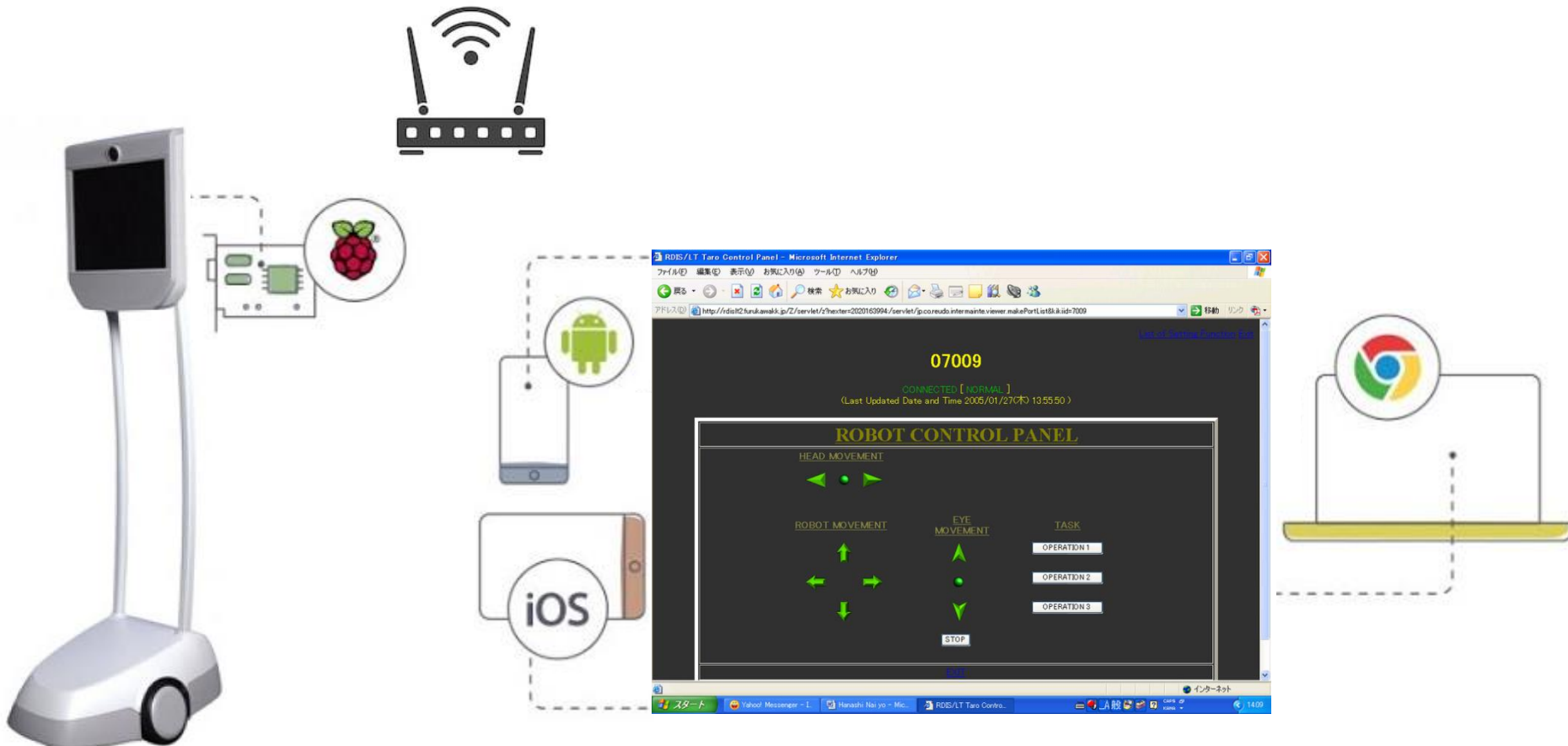

Airport Guide

Olympic Guide

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Guide Robot for You

Web Controlled Robot

❑ Remote controlled wheeled Robot using Web

: Robot controlled by laptop or mobile devices over web in the network

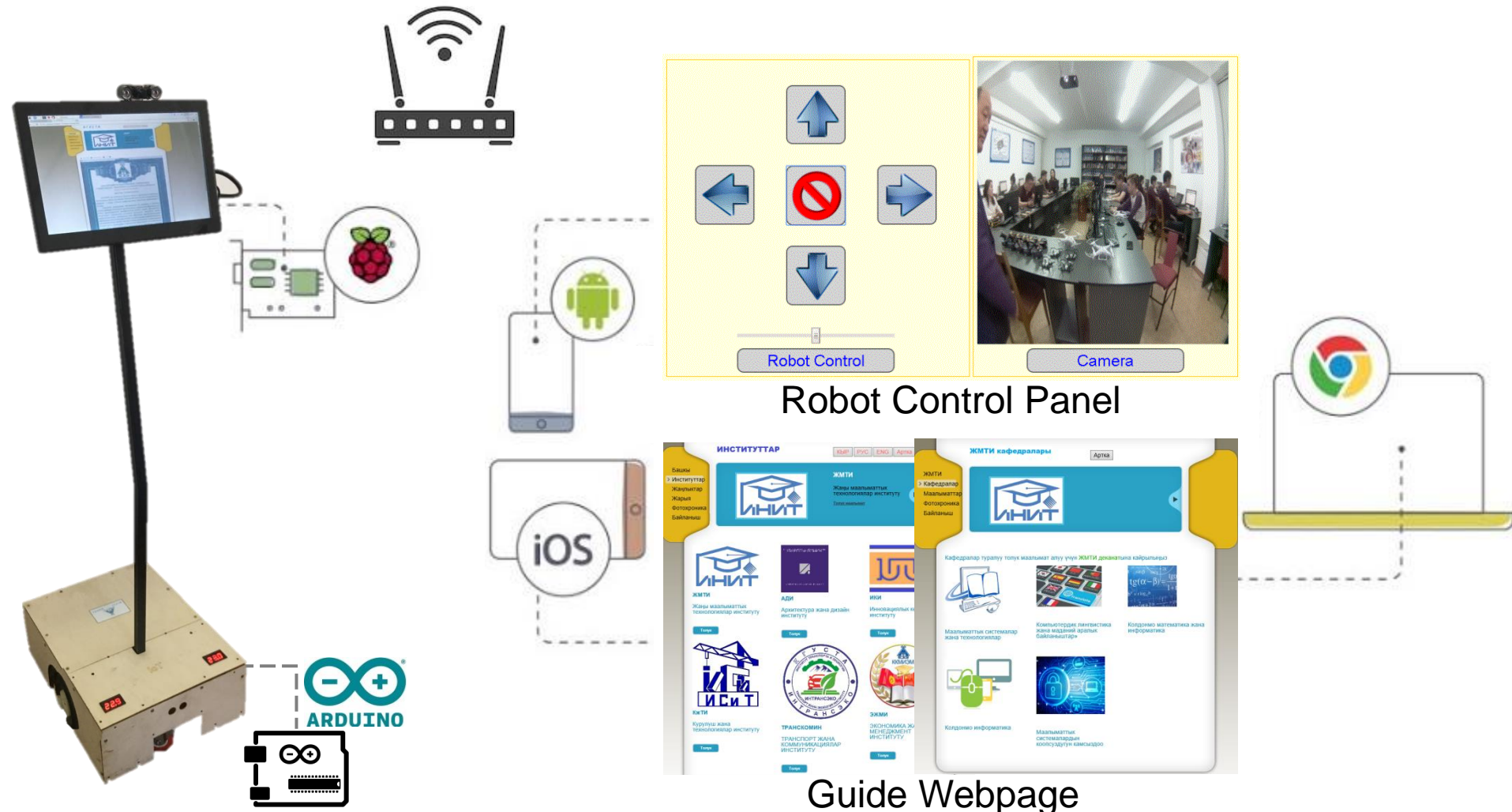# Guide Information Display Robot

❑ Show Guide Information Web on Touchscreen of Robot

Web contents for Guide Information

Guide Robot for University Campus

❑ Web based Wheeled Robot using Raspberry Pi and Arduino

Robot Control Panel

Guide Webpage

Part List

	Item	#	Price($)
Chassis	Metal frame including soldering	1	475
	Battery pack 24V 15A	2	122
	Charger 24V 10A	1	13
	Wheels(including side wheel)	2	44
	DC-DC Converter	2	3
uC	Raspberry Pi 3B	1	40
	Arduino UNO	1	10
Sensor	Ultrasonic sensor	1	5
	Raspberry Pi Camera	1	33
Actuator	Stepper motor with planetary reducer	2	145
	Stepper motor driver	2	63
Display	LCD Touchscreen	1	170
Indicator	Voltage Indicator	2	5

Work Plan

Activities		Responsibility		Due date
		Lee	Akosha	
1. Building Robot Hardware				~ 21/12/2018
Make Robot chassis	Design the Robot	O	O	~ 01/10/2018
	Order to Geek	O	O	~ 21/12/2018
Assemble Robot Parts (Wiring)	Connect all parts by wiring(power & signal)	O	O	~ 21/12/2018
	Check all connections & leakage	O	O	~ 21/12/2018
2. Creating Robot Software				~ 08/02/2019
Robot Control (Arduino)	Stepper motor control		O	~ 04/01/2019
	Distance measurement with Ultrasonic		O	~ 04/01/2019
	Bluetooth control		O	~ 04/01/2019
Web Application (Raspberry Pi)	Install Web-sever using Flask	O		~ 04/01/2019
	Image processing with Camera	O		~ 11/01/2019
	Remote control environment	O		~ 25/01/2019
Web-based Robot Control (Raspberry Pi + Arduino)	Make Web Control Panel with HTML, CSS		O	~ 18/01/2019
	Write main control program with Python	O		~ 08/02/2019
Web Contents (Webpage)	KSUCTA homepage		O	~ 04/01/2019
	Electronics shop homepage		O	~ 25/01/2019