

Project Proposal – Like WALL.E

Design and Practices of Embedded Systems

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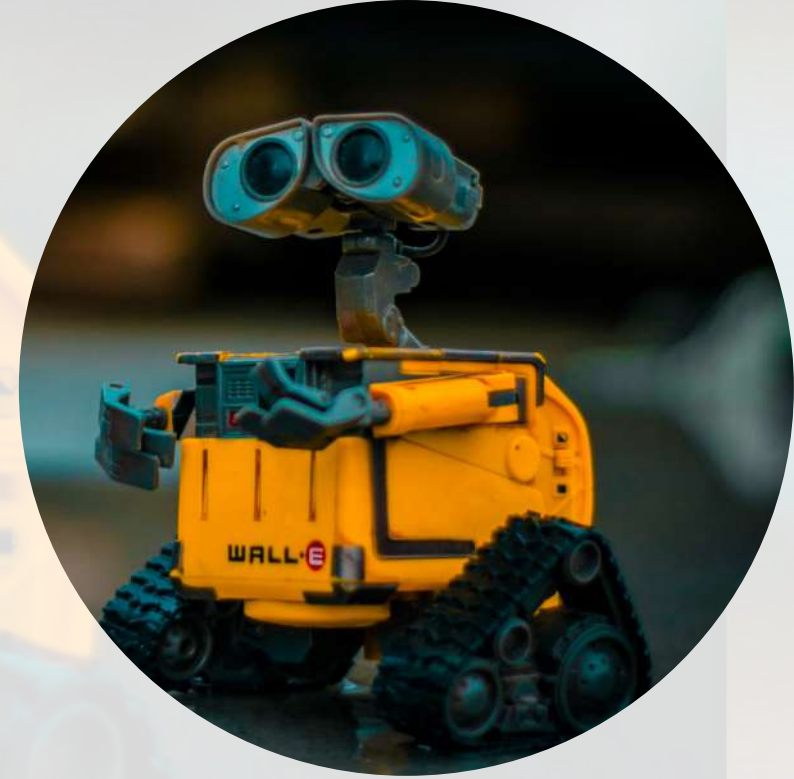
Teacher: Jaesik Jeong

Agenda

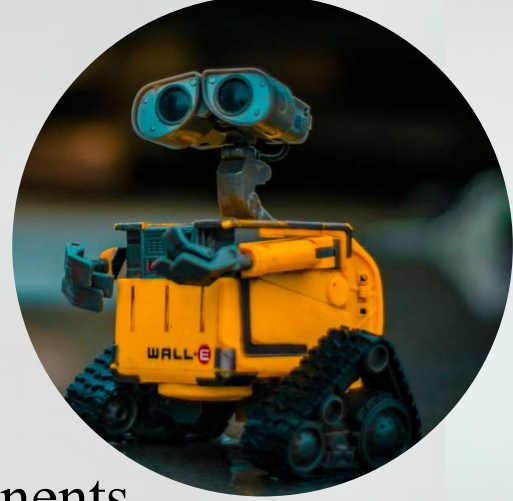
- Expected
- Required Components
- Challenge

Expected

- ❑ Simple Movement
- ❑ Obstacle Avoidance
- ❑ Eye Lighting Effects
- ❑ Sound Playback
- ❑ Follow Mode
- ❑ Screen Display for Expressions or Messages
- ❑ Mobile App Control (Or something like that)



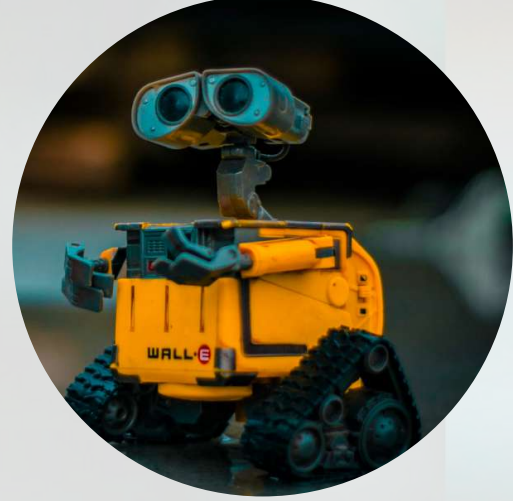
Required Components



- ❑ Arduino Uno Rev3: Control board
- ❑ Battery and Battery Case: Provides power to Arduino and other components
- ❑ Motors: Drive the robot's wheels
- ❑ Small Wheels and Robot Base: Form the foundation for the robot's movement
- ❑ Ultrasonic : Detects objects to avoid collisions
- ❑ LEDs: Simulate Wall-E's eye effect
- ❑ Small Speaker: Plays simple sounds or music
- ❑ Infrared Distance Sensor or Infrared Following Module:
Enables basic following functionality
- ❑ OLED Display or Small LCD Display: Displays expressions or simple messages
- ❑ Bluetooth Module or Wi-Fi: Allows control of movement.

Challenge

- ❑ Arduino Pins
- ❑ Motor Size
- ❑ Small Wheels might not work
- ❑ Ultrasonic (Don't know we have or not)
- ❑ Small Speaker
- ❑ Bluetooth Module or Wi-Fi





Thank you for listening

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