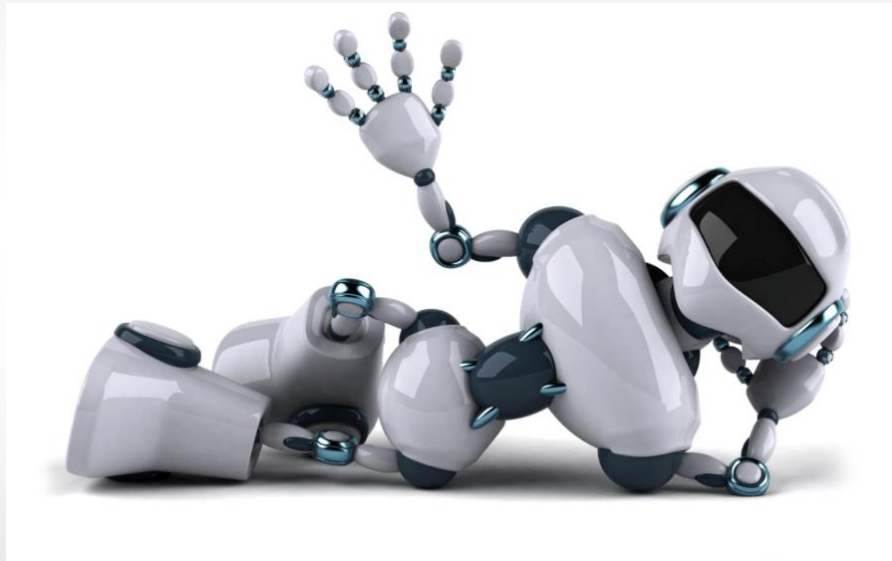


# **RBE 1001**

## **Intro to Robotics**



**2020C**

**Any questions?**

**Who are you?**

**Who am I?**



**Greg Lewin**  
**85 Prescott, 202A**

**but I'll generally hold office hours  
in AK 122 or the Robotics Lab**

**Who are these other nice people?**

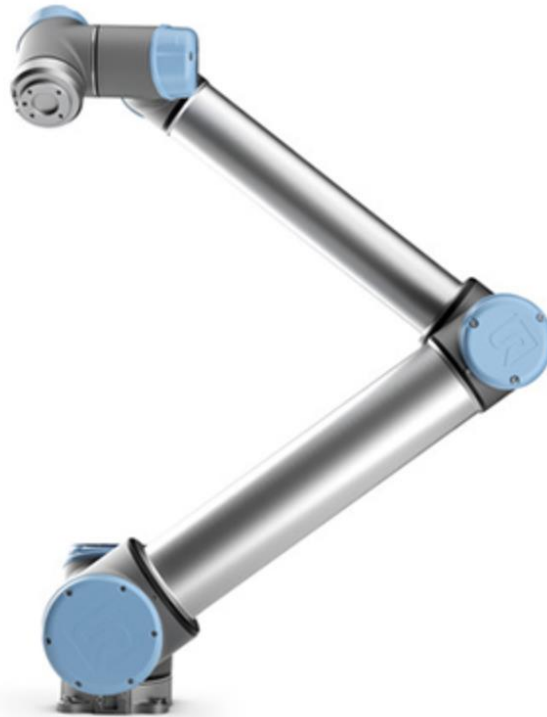
**What do you want to get out of this class?**



**What is a robot?**

**What do robots do? What are they  
used for?**

# Is this a robot? What is it used for?



**UR10**

# Is this a robot?



# Is this a robot?



# Is this a robot?



# Is this a robot?



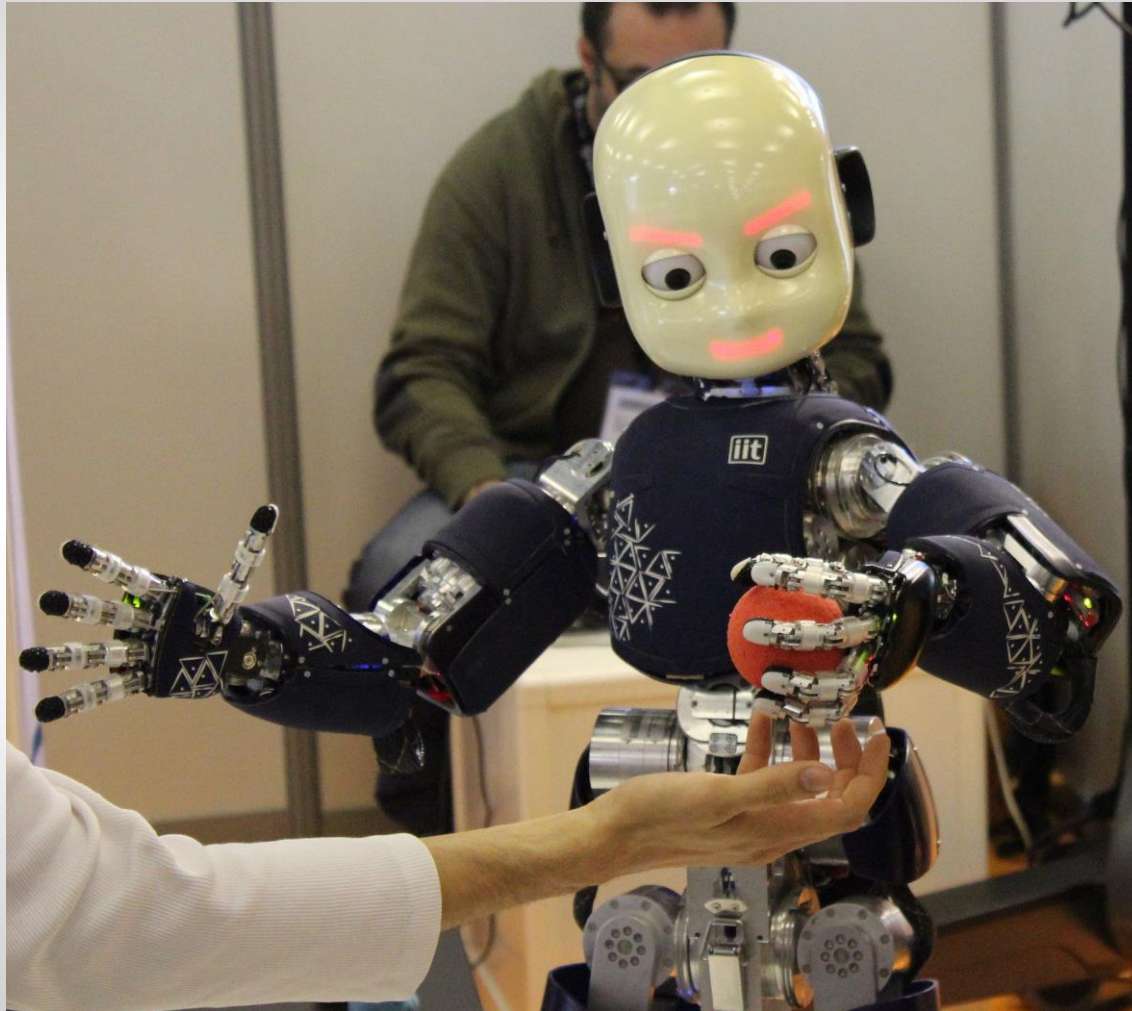


# Is this a robot?





# Is this a robot?



# Is this a robot?



**What are the essential qualities of a robot? What makes a robot different from an “electromechanical system”?**

**What goes into a robot? What  
is it made of? What  
components, subsystems?**

# What goes into a robot?

**What goes into *building* a robot?**  
**What does the engineer do?**

**What goes into *building* a robot?**

# **What / think you should get out of this class**

- **An introduction to the disciplines that constitute “robotics”**
- **What it takes to *build* a robot**



$$\text{RBE} > \text{ECE} + \text{ME} + \text{CS} (+ \text{SE})$$

- It's one thing to understand all the technical details, but...
- Someone has to put all of the pieces together to make a working system
  - Define functionality
  - Integrate the pieces
  - Test the system

# Course Philosophy

- You all come in with different skillsets
- I can't possibly teach you every bit about every discipline in robotics (well, not in seven weeks, anyway...)
- You will have several self-directed exercises to cover the basic concepts
- That way, we can spend valuable class time *applying* those concepts to robotics!

# To do

- [https://canvas.wpi.edu/calendar#view\\_name=month&view\\_start=2020-01-13](https://canvas.wpi.edu/calendar#view_name=month&view_start=2020-01-13)

CATME survey coming!

but I first need to know which  
lab section you're in!