

Week_6

Trinity Robotics

09/19/2022

Today we will

- **expand our knowledge of Robotics
- **watch a short video
- **continue learning about Electronics

Automation

The method of making a machine, a process, or a system work without being directly controlled by a person.



Design Process

Used to develop solutions to a problem





Engineer

A person who designs and builds complex products, machines, systems, or structures



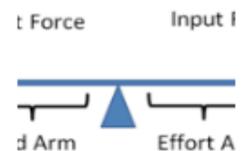
Engineering

The application of science to the goal of creating useful machines (like cars), structures (like bridges) or systems (like software)



Output

Result of input



Robots and robotic arms are frequently used for:

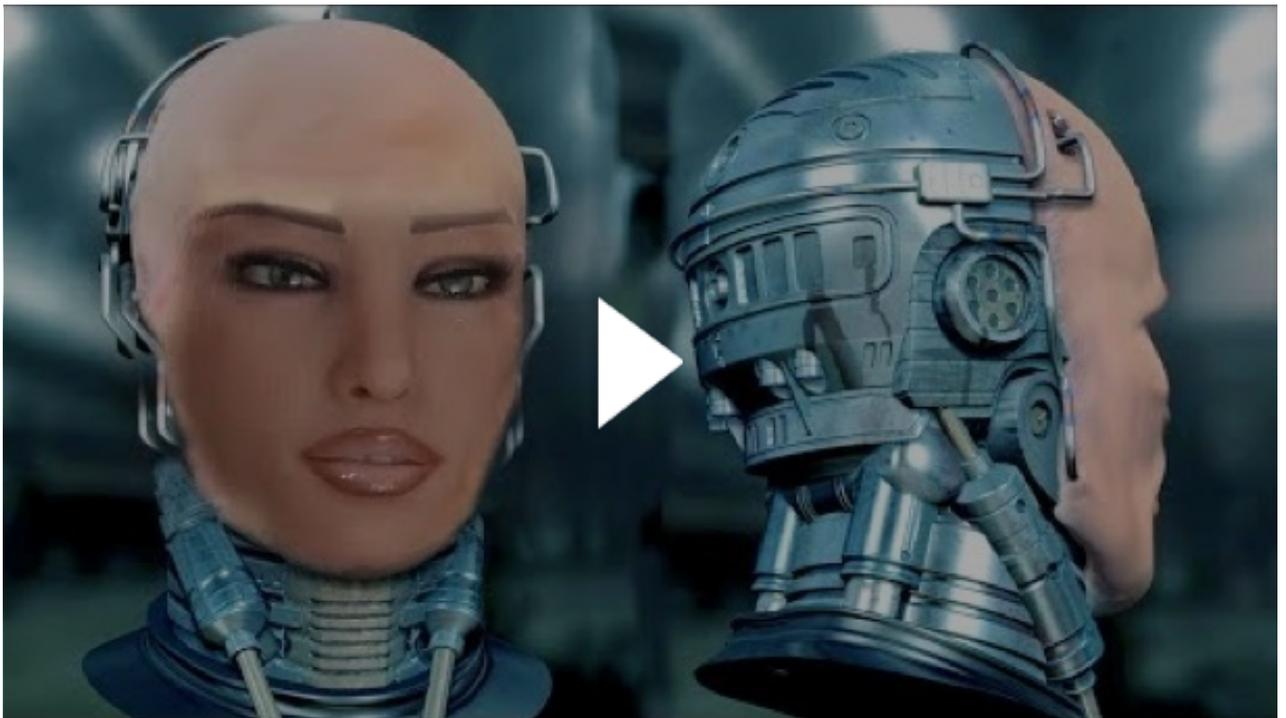
- Car manufacturing
- Military - Bomb disposal, weapons, army surveillance
- Medical - Surgery, X-Rays, life support
- Space - Shuttles, International Space Station, mars rovers



ers

Copy to browser-<https://youtu.be/l1DTVbzPvKA>

[Most ADVANCED AI Robots In The World TODAY!](#)



Next we will continue our series about
Electronics...

First we will expand our knowledge about breadboards...

Here is a short video:

[1https://www.youtube.com/watch?v=6WReFkfrUIk](https://www.youtube.com/watch?v=6WReFkfrUIk)

Next we will have a class exercise:
Building circuits using breadboards...

What is electronics?

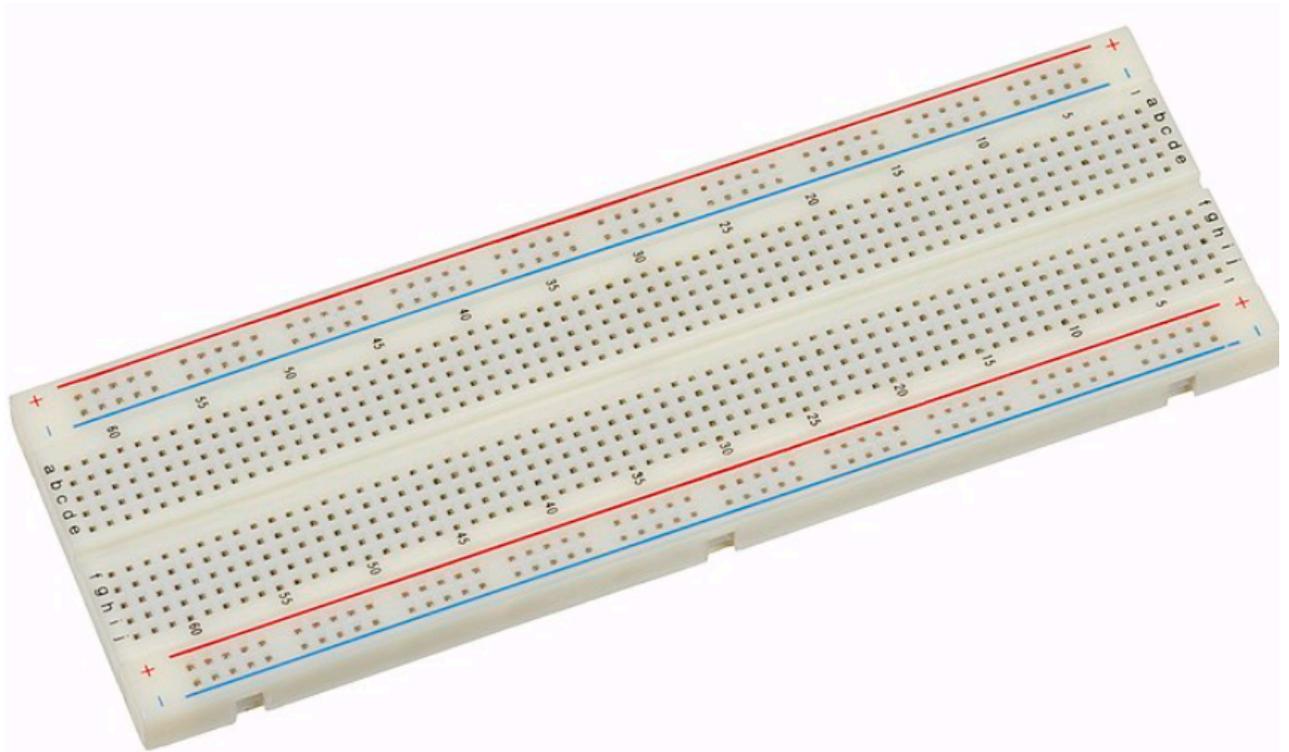
Electronics is the branch of science that deals with the study of flow and control of electrons (electricity) and the study of their behavior and effects in vacuums, gases, and semiconductors, and with devices using such electrons.

What is Electricity?

Electricity is a type of [energy](#) that can build up in one place or flow from one place to another. When electricity gathers in one place it is known as **static electricity** (the word static means something that does not move); electricity that moves from one place to another is called **current electricity**.

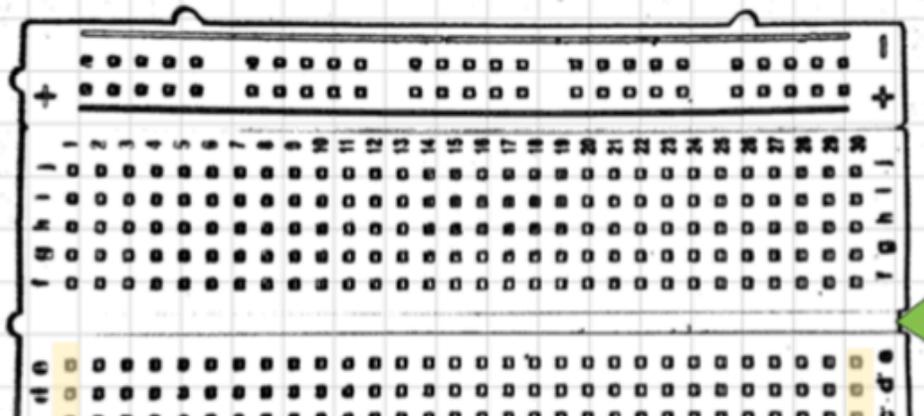
Last week we learned about a bread board,

Quick Review:



A **breadboard** is used to build and test circuits quickly finalizing any circuit design. The **breadboard** has many holes in which circuit components like ICs and resistors can be placed.

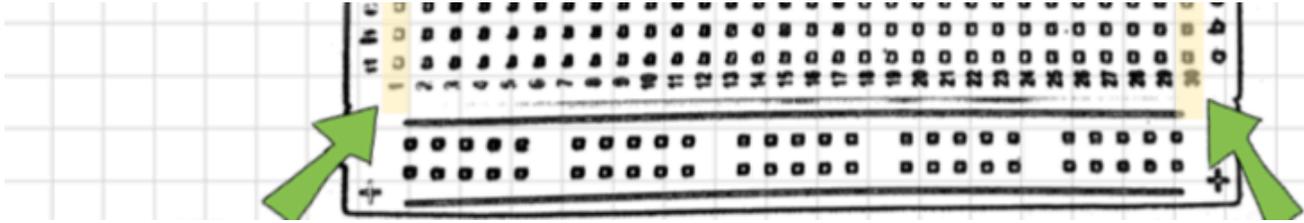
We use breadboards to experiment with wires and other devices. One cool thing about them is we can easily disconnect the wires and devices when we're done. Breadboards are very easy to understand. Each hole is connected to every other hole in that row, but only in that row.



...ly before
...any holes into
...be inserted.

...s. What's
...es when
...e in a row
...ow.

A channel
separates
the left
from the
right side
of the



This week we will continue our work with the bread board and build a simple series circuit.

We will use
Wires & Resistors...

Next week we will learn about an Electronic Component and add an L.E.D. with a power supply to our circuits...

breadboard

ard to build A

t called a Diode,