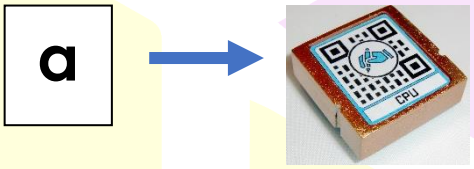
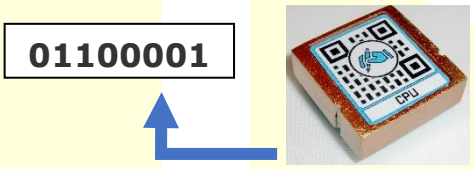
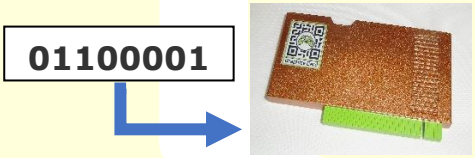
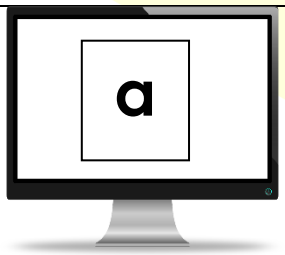
Data Flow from User Input to Monitor Output

Look at how each of the components are connected to the motherboard. Pay close attention to where the cables are connected as well as the external components.

Use the information you have learned from the Augmented Reality App regarding the function of each component.

Complete the step-by-step scenario

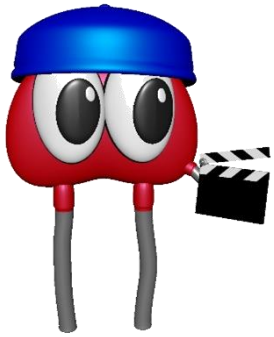
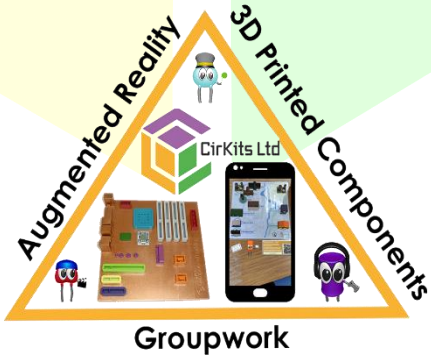
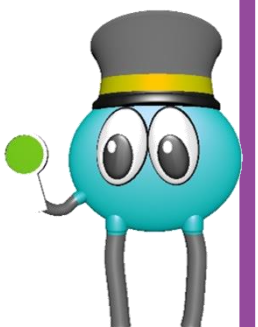
	Step 1: Student presses "a" on the keyboard
	Step 2:
	Step 3:
	Step 4:
	Step 5:
	Step 6:

Challenge:

1. The processor can only understand binary (1's and 0's) because transistors and diodes located on the motherboard only have 2 electronic states: Off and On.
   * Which binary number is represented as On? ____
   * Which binary number is represented as Off? ____

2. Why do you think human language is difficult for computers to understand?

3. Why are there so many programming languages?

4. When the computer is booted up, the ROM plays a very important role to make sure the computer system is working correctly.
   * What is the function of the ROM?
   * What does BIOS stand for?
   * What is the sequence of events when the computer is booted up? Put these steps in the correct order

Operating System loads up desktop with icons, menu and taskbar
ROM runs BIOS
BIOS finds where the Operating System (Windows or iOS or Android or Linux) is and saves into short term memory
Power Supply to motherboard
BIOS checks hardware
CPU sends instructions to ROM