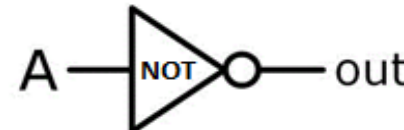
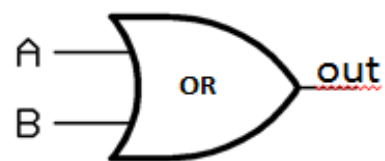
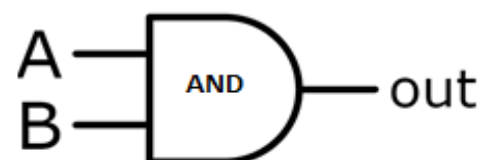
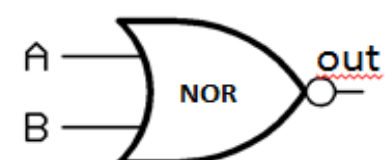
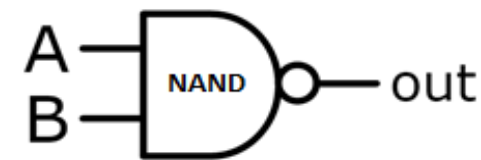
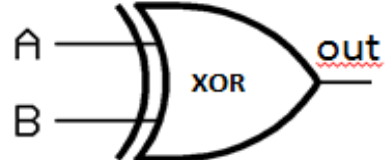


# Logic Gates

 <table border="1" data-bbox="540 585 734 685"> <thead> <tr> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> </tr> <tr> <td>1</td> <td>0</td> </tr> </tbody> </table>	Input	Output	0	1	1	0	 <table border="1" data-bbox="1159 542 1352 728"> <thead> <tr> <th>A</th> <th>B</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>1</td> <td>0</td> <td>1</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table>	A	B	Output	0	0	0	0	1	1	1	0	1	1	1	1									
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## WHAT WE DID?

When we were deciding our scenario in informatics field, we deemed logic gates suitable. Because logic gates are one of the basic units of computers. Students can get a chance to see logic gates lively and they can interact with them. So, students can see results immediately when they changed the inputs.

For this purpose, logic gates were created in a 3D CAD software primarily. After than, inputs and outputs of logic gates were drawn. These drawn graphics were turned into animations. Lastly, these animations placed on base printouts and prepared to embed them in apk file.

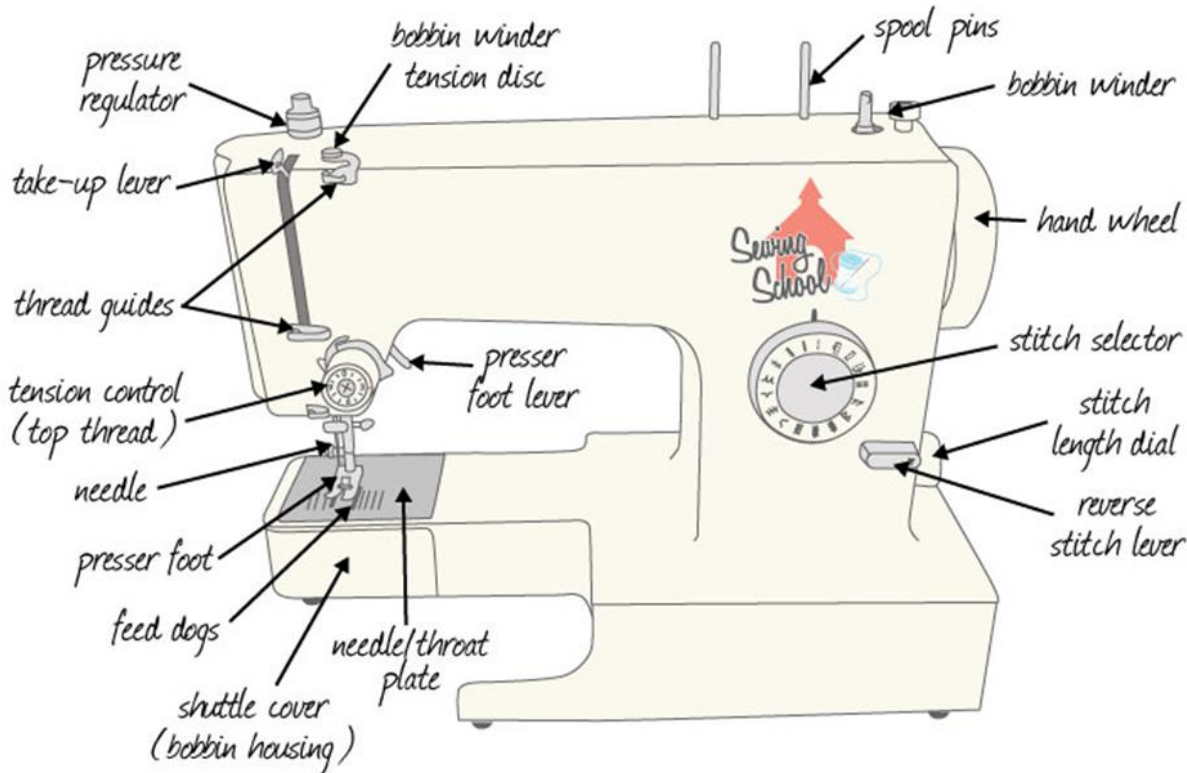
Additionally, half adder and full adder circuits were created as a secondary software of informatics field on our Greek partners requests.

## HOW SOFTWARE WORKS?

When you look at scene that placed on the left side with your camera via ARAVET software which you can download it from Google Play Store, you can see 3D logic gates revealed on the paper. When you changed inputs via buttons, you can see your output results.

# Sewing Machine

## Anatomy of a Sewing Machine



## WHAT WE DID?

When we were deciding our scenario in textile field, we deemed bobbin changing on sewing machine suitable. Because it's too hard to teach changing of the bobbin to students.

Students can get a chance to see changing of bobbin and they can look at the machine closely with our software's contribution.

For this purpose, body of sewing machine were created as a draft in a 3D CAD software. After than presser foot were drawn. After drawing bobbin winder with more details, sewing machine drawing were completed. Lastly, these animations placed on base printouts and prepared to embed them in apk file.

## HOW SOFTWARE WORKS?

When you look at scene that placed on the left side with your camera via ARAVET software which you can download it from Google Play Store, you can see a 3D sewing machine revealed on the paper. You can start the sewing machine and change the bobbin by pressing the buttons on the screen.

## WHAT WE DID?

When we were deciding our scenario in electronics field, we deemed diode's working principle suitable. Because diode is one of the essential components in electronics field.

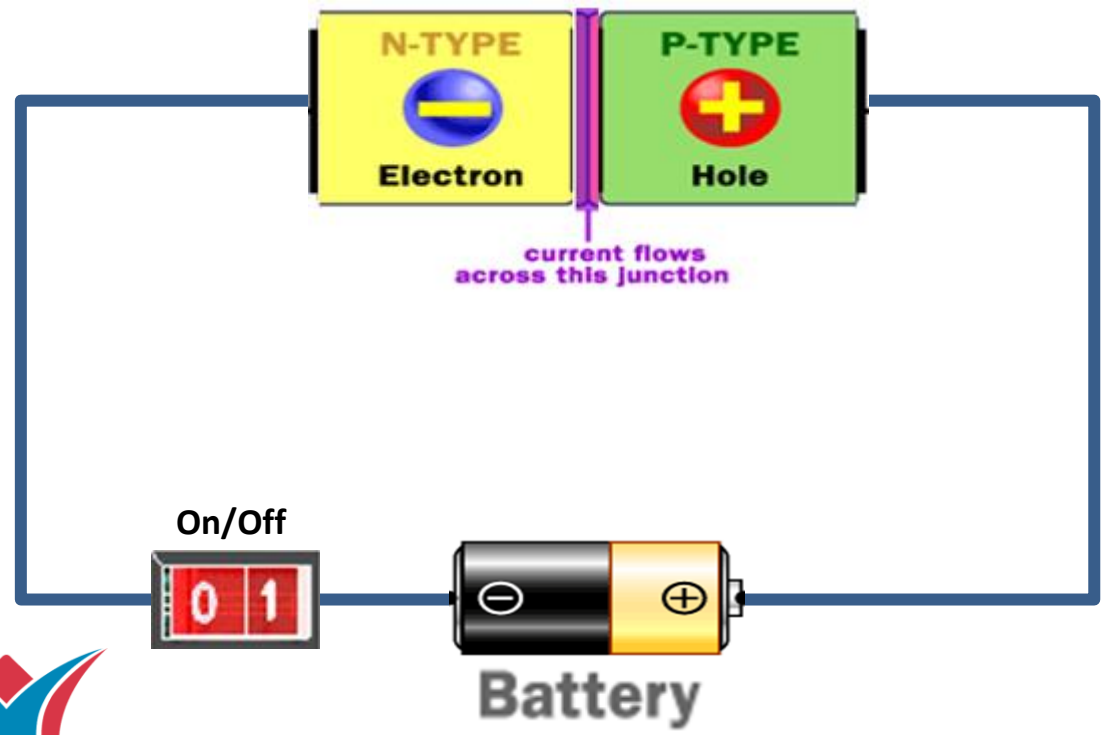
It's so hard to imagine "What is occurring inside of a diode" in student's mind. Because we have no chance to look inside of a diode. So, we wanted to show how is working a diode in both forward bias and reverse bias.

First of all, we created interior of diode in a 3D CAD software. After that, 3D softwares converted to animations. Lastly, these animations placed on base printouts.

## HOW SOFTWARE WORKS?

When you look at scene that placed on the left side with your camera via ARAVET software which you can download it from Google Play Store, you can see a 3D circuit revealed on the paper. By pressing the buttons you can see PN Junction of diode and reactions under both forward bias and reverse bias.

# Diode



### WHAT WE DID?

When we were deciding our scenario in informatics field, we deemed logic gates suitable. Because logic gates are one of the basic units of computers. Students can get a chance to see logic gates lively and they can interact with them. So, students can see results immediately when they changed the inputs.

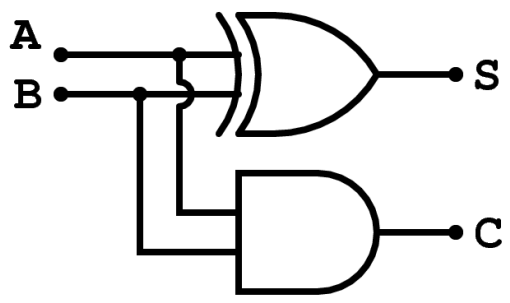
For this purpose, logic gates were created in a 3D CAD software primarily. After than, inputs and outputs of logic gates were drawn. These drawn graphics were turned into animations. Lastly, these animations placed on base printouts and prepared to embed them in apk file.

Additionally, half adder and full adder circuits were created as a secondary software of informatics field on our Greek partners requests.

### HOW SOFTWARE WORKS?

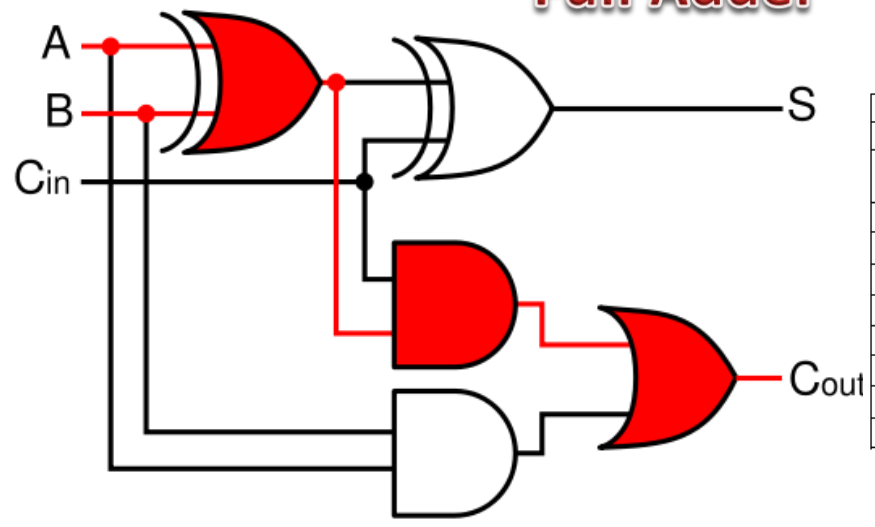
When you look at scene that placed on the left side with your camera via ARAVET software which you can download it from Google Play Store, you can see 3D logic gates revealed on the paper. When you changed inputs via buttons, you can see your output results.

### Half Adder



A	B	S	C
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

### Full Adder



Input			Output	
A	B	Carry in	Sum	Carry
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1