

USING  
**SCRATCH**

# ASTROID

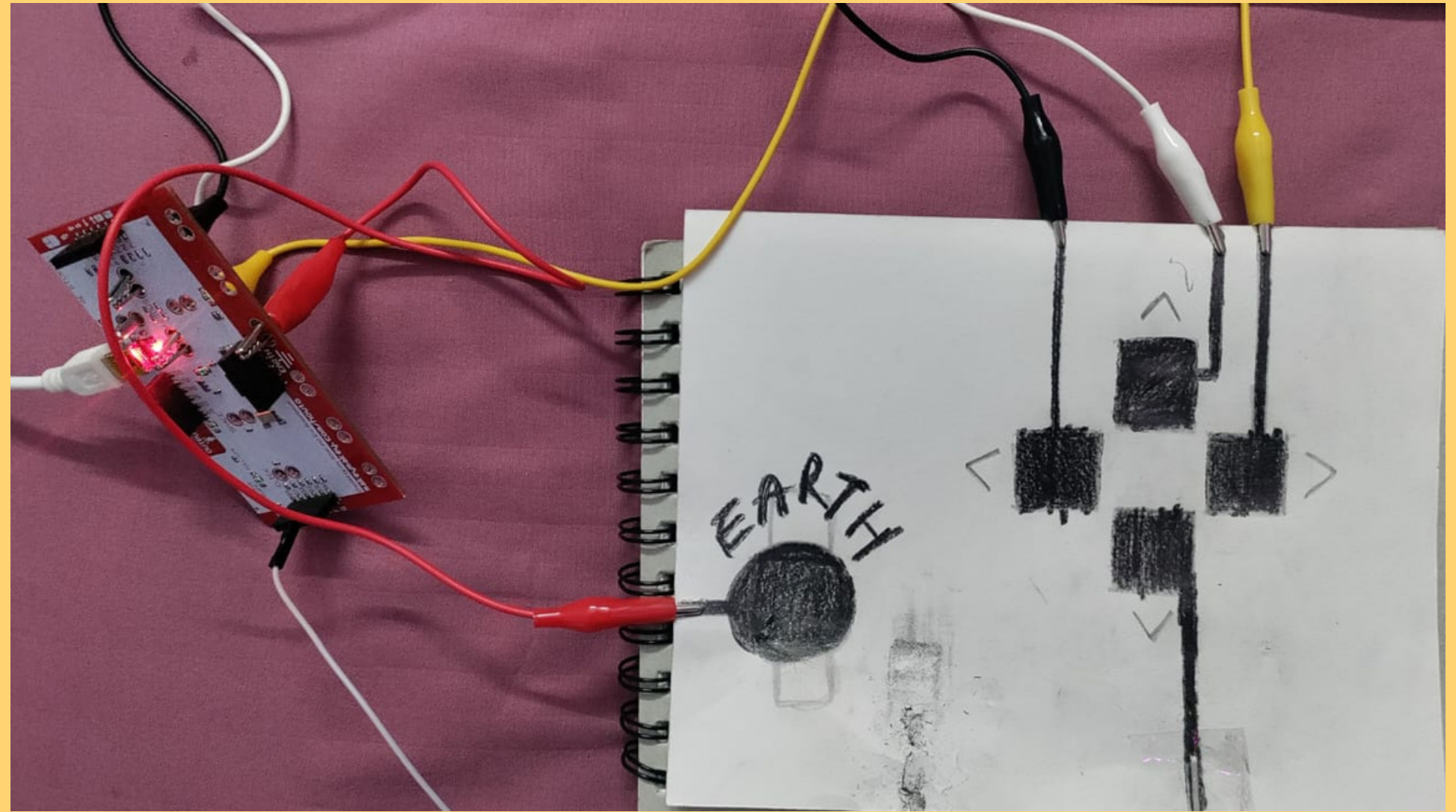
You are travelling through an  
astroid belt

Don't crash into the astroids or your  
journey will come to an end!

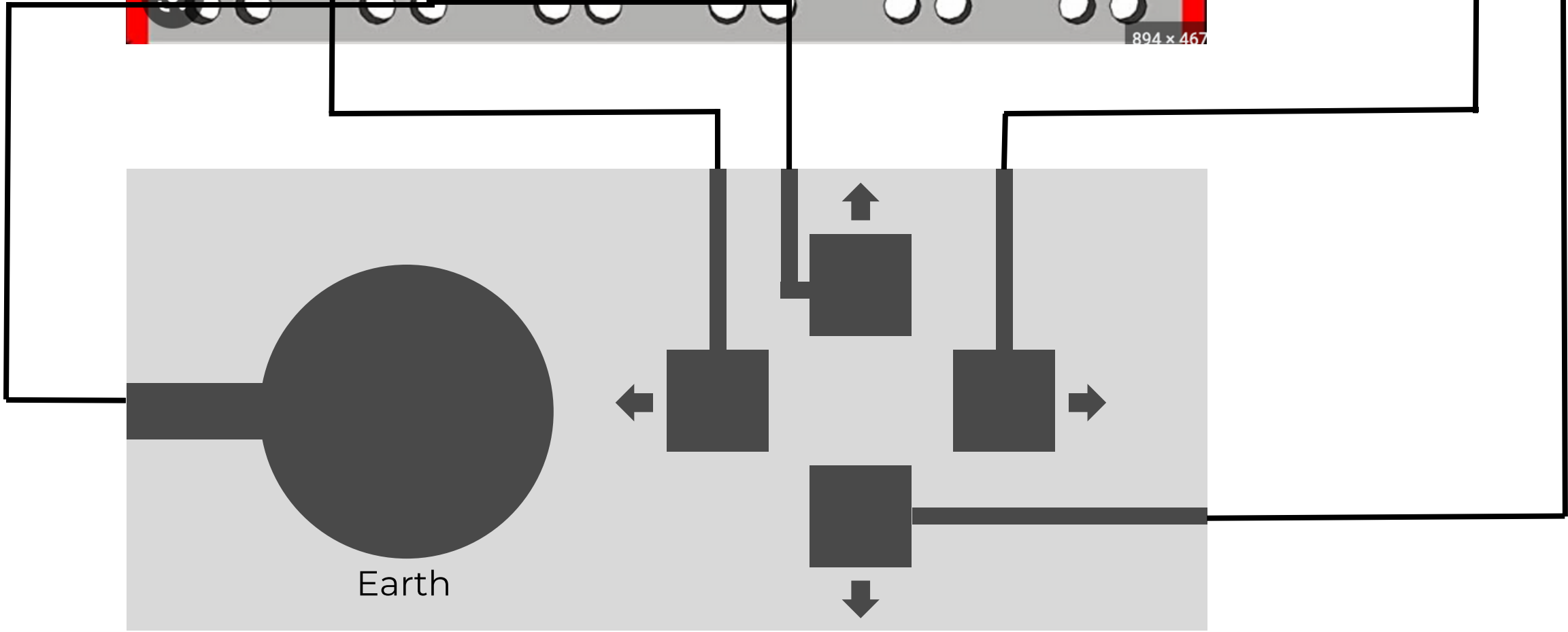
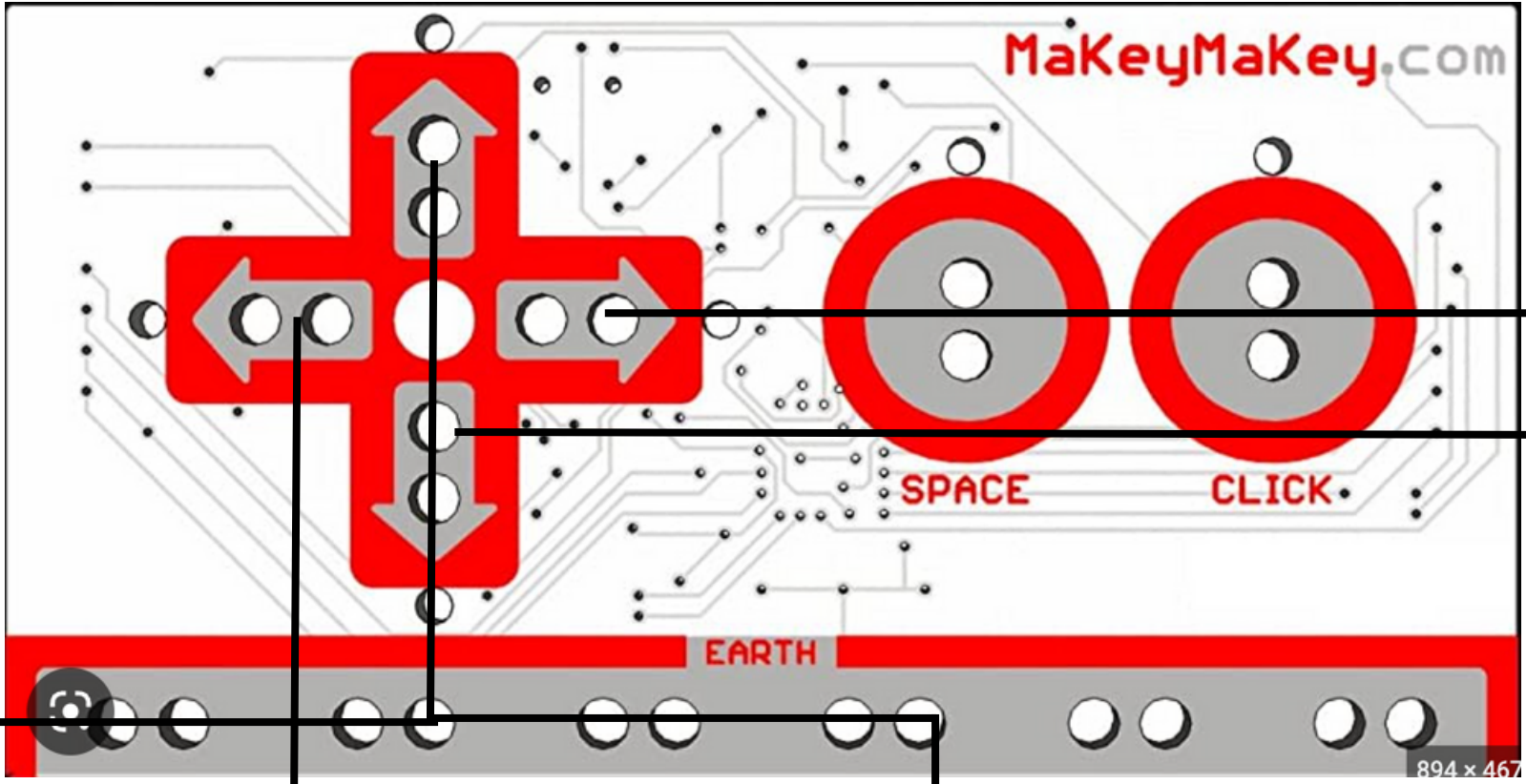


[Watch the video here!](#)

# THE CIRCUIT



I connected the motion arrow keys to the panel with graphite as a conductor, apart from that I added the earth key too as it is needed to complete the circuit,



graphite  
(conductor)

Paper

# SCRATCH CODE

The image shows the Scratch code editor for a project named "astroid". The code is written for the "PlayerSprite1" sprite. The script begins with a "when green flag clicked" event, followed by a "go to random position" block. A "when green flag clicked" event block is also present. The main script consists of a "when green flag clicked" event block, followed by a "go to random position" block, a "glide 1 secs to random position" block, a "glide 1 secs to x: -12 y: 45" block, a "point in direction 90" block, and a "point towards mouse-pointer" block. The script then enters a loop: "change x by 10", "set x to -12", "change y by 10", and "set y to 45". The script ends with a "when green flag clicked" event block.

The image shows the Scratch code editor for the same "astroid" project. The code is written for the "laserSprite1" sprite. The script begins with a "when green flag clicked" event, followed by a "go to random position" block, a "glide 1 secs to random position" block, a "glide 1 secs to x: -210 y: 177" block, a "point in direction 90" block, and a "point towards mouse-pointer" block. The script then enters a loop: "change x by 10", "set x to -210", "change y by 10", and "set y to 177". The script ends with a "when green flag clicked" event block.

# SCRATCH CODE

The image shows the Scratch code editor for a project named "astroid". The code is organized into several nested loops and conditional blocks. The main script starts with a "when green flag clicked" event, followed by a "go to random position" block. A "repeat" loop contains a "go to x: -342 y: -73" block, a "glide 1 secs to random position" block, and a "point in direction 90" block. A "when clicked" event triggers a "hide" block, followed by a "delete all of bang" block. A "forever" loop contains a "length of bang" block, a "switch costume to item 1 of bang" block, a "set x to item 2 of bang" block, a "set y to item 3 of bang" block, a "delete 1 of bang" block, and a "create clone of myself" block. The sprite is "astroid Sprite1Spri..." with coordinates x: -342, y: -73, size 300, and direction 78.

The image shows the Scratch code editor for the same "astroid" project, but with a simplified script. The main script starts with a "when green flag clicked" event, followed by a "go to random position" block. A "repeat" loop contains a "go to x: 3 y: -103" block, a "glide 1 secs to random position" block, and a "point in direction 90" block. A "when clicked" event triggers a "hide" block, followed by a "delete all of bang" block. A "forever" loop contains a "length of bang" block, a "switch costume to item 1 of bang" block, a "set x to item 2 of bang" block, a "set y to item 3 of bang" block, a "delete 1 of bang" block, and a "create clone of myself" block. The sprite is "boomSprite1" with coordinates x: 3, y: -103, size 100, and direction -93.

# EXPERIENCE

- Learning the scratch language was a little challenging at first but with the help of video tutorials I was able to understand the coding required
  - Integrating MakeyMakey with Scratch was a little challenging, but with some time I was able to understand how to make them work together
  - Compatibility was another issue, MakeyMakey is not compatible with all objects, and some objects don't work well as controllers.
  - Another challenge was learning how to make the different sprites and making them interact with the other sprites.
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# WHAT I LEARNED

My problemsolving abilities were enhanced by programming the movements and behaviors of the characters and objects, as well as designing an enjoyable and visually appealing game. Overall, this exercise allowed me to develop my creativity and technical skills while exploring new ways of expressing my ideas through programming

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**THANK  
YOU**