

Tutor guidance



Co-funded by the
Erasmus+ Programme
of the European Union

Watch instructional video on Makey Makey.com if you are unsure of its operation. Check your learners are allowed to use the device with the organisation medical team.

Page 1.

Learners to be sat around either a table or the whiteboard depending on visual abilities. Tutor to introduce the Makey Makey and demonstrate its operation. This is a good time to use the Makey Makey with Scratch.com as the two are both made by MIT and complement each other within the learning environment.

Suggested activity to introduce the Makey Makey:-

- Start by plugging the Makey Makey in to the computer and finding the piano application on Makey Makey.com.
- Plug one crocodile clip in to a apple and connect to the up arrow of the Makey Makey.
- Earth yourself using a anti static strap or make your own earth using a crocodile clip.
- Ask all of the learners to hold hands around in a circle explaining that they will be creating a circuit.
- As you are earthed you need to start the circuit and the final learner needs to touch the apple to make the piano sound.
- This can spark a lot of discussion around what is happening. If there is a break in the circuit from a learner who is not taking part or finding it difficult to hold hands then this is a perfect opportunity to explain the reason behind it and send in a member of the support staff to complete the circuit.
- Learners will ask lots of questions so be prepared to have your responses. The Makey Makey is not only an IT resource it also opens up the world of science and biology.

Tutor guidance



Co-funded by the
Erasmus+ Programme
of the European Union

Page 2.

This is the part of the session where the learners get to experiment. They will be asked to have discussions about what they think will work with the Makey Makey and what they think will not. In my experience this part of the session encourages some interesting debates. Allow this to blossom and encourage conversation by asking **Why?**

You will need to gather some things for this aspect of the session. These will include:-

- Conductive materials such as fruit, vegetables, leaves, metals, pencils!, water, play doh etc.
- Non conductive materials such as plastics, cloth, felt, wood, paper, etc.

Time to test.

At this stage you need to hand out all of the materials and worksheet number 2. in their groups the learners will make choices and decide if the materials goes in the green box or red box. Once they have done this you can then let them test their hypothesis. Make sure they stick to their choices and ask them to try and explain why they may or may not work.

Time to mix it up.

You should have given out a pencil and a piece of paper. In order to push the learners understanding and after they have proven that neither work with the MM. Ask the learner to scribble on the paper so the crocodile clip can be attached to the area. Now watch their amazement as the combination of the two can be made to work with the MM.

Tutor guidance



Co-funded by the
Erasmus+ Programme
of the European Union

Page 3.

This is an opportunity for the learners to try and use their creativity and the knowledge that they have learnt from the previous two activities. Learners will work in their groups to make a tune from the MM. They will use the piano application from Makey Makey.com and will need to decide a few things in order to make their switches.

These are:-

- What equipment do we need?
- What switches do we need to make?
- What will we make them from?
- How will we lay them out?

This can become a competition if you have two or more teams with the first one to play all six notes the winner. The learners need to use the worksheet to help them plan how to lay out their designs. Each learner needs to be given the chance to make a switch. A point to consider here is do they remember to include the earth in their designs.

Equipment list:-

- Makey Makey.
- Conductive and non conductive materials.
- Computer with Makey Makey.com loaded up.
- Crocodile clips.
- Earth cable or anti static strap.

Tutor guidance



Co-funded by the
Erasmus+ Programme
of the European Union

Page 4.

Using Scratch.com type in Makey Makey in to the search box at the top of the page. Here you will find games that can be played with the MM. you as the tutor must decide which is suitable for the level of learner. Two of the games that have worked really well in the past due to their team building development are Tetris and Pac Man. Both can be found here.

Activity:

The learners need to develop a games controller using the objects in front of them. It is best to give a brief overview of how the game is played before they try and make the controller. Tell the learners they have 20 minutes to create a controller and test it before they compete with each other to see who is the best team. You will be building team working, communication and problem solving skills.

Playing the game:

If a interactive whiteboard is available use it. Play the games head to head on the board so all of the learners feel a part of the process.

Page 5 and 6

Give these pages to the support staff who can use them as a reference. Explain the process before the session and edit page 5 and 6 to meet your learners outcomes.

Support guidance



Co-funded by the
Erasmus+ Programme
of the European Union

The learners should be encouraged to:-

- . Take part in discussions with each other.
- . Use appropriate language and behaviours during the discussion.
- . Ask and respond to questions.
- . Try what works and what doesn't and then place or indicate which box they need to go in.
- . Make their own switch for the games controller.
- . Please make notes directly on the handouts about decisions and discussions

Quick tick sheet for recording progress
against targets



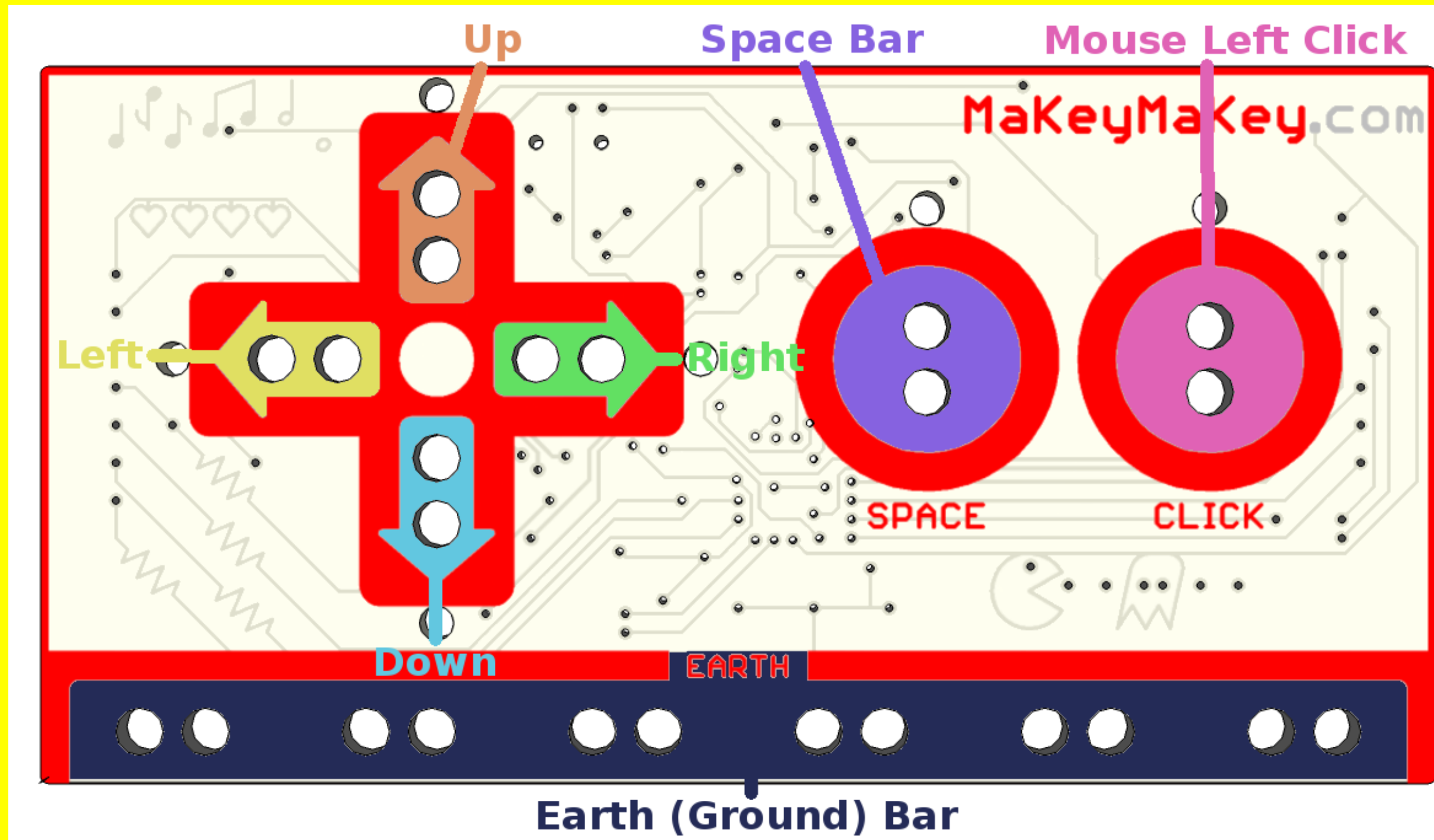
Co-funded by the
Erasmus+ Programme
of the European Union

Name	Take turns	listen	Use eye contact	Smile friendly	Were they polite	Ask questions	
David							
George							
Asad							
James							
Chelsea							
Josh							

What is this?



Co-funded by the
Erasmus+ Programme
of the European Union



Answer

Names _____

Date _____

Switches



Co-funded by the
Erasmus+ Programme
of the European Union

Have a discussion about the following :-

- What do you think will work as a switch for the Makey Makey?
- What do you think will not work as a switch for the Makey Makey?
- Place them in the box you think they belong in.

I think this will
work

I do not think this
will work

Names_____

Date_____

Game controller

Have a discussion about the following :-

- What equipment do we need?
- What switches do we need to make?
- What will we make them from?
- How will we lay them out?

Make your switch and place it in this yellow box.



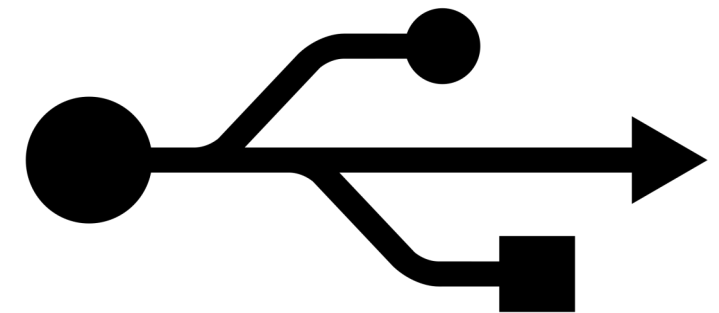
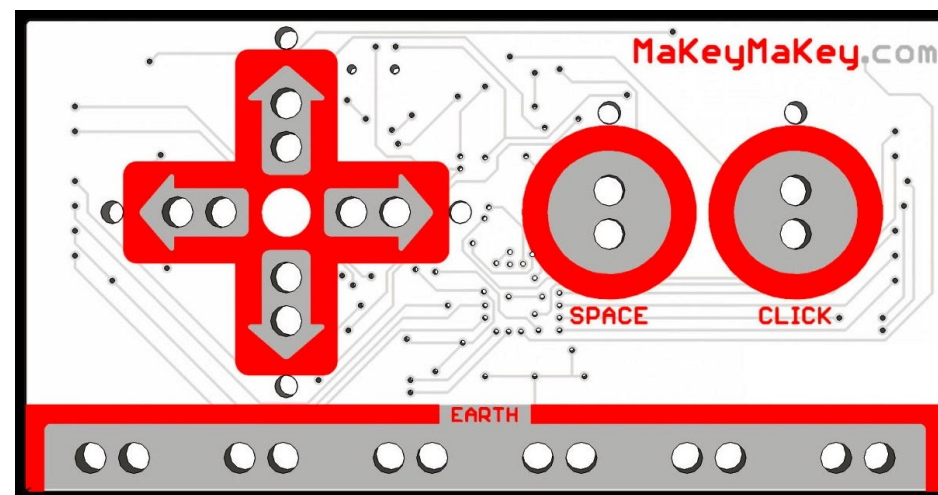
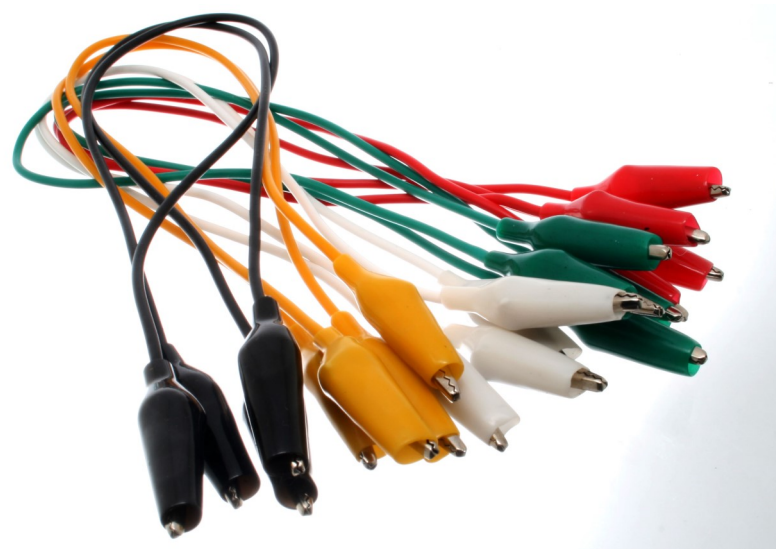
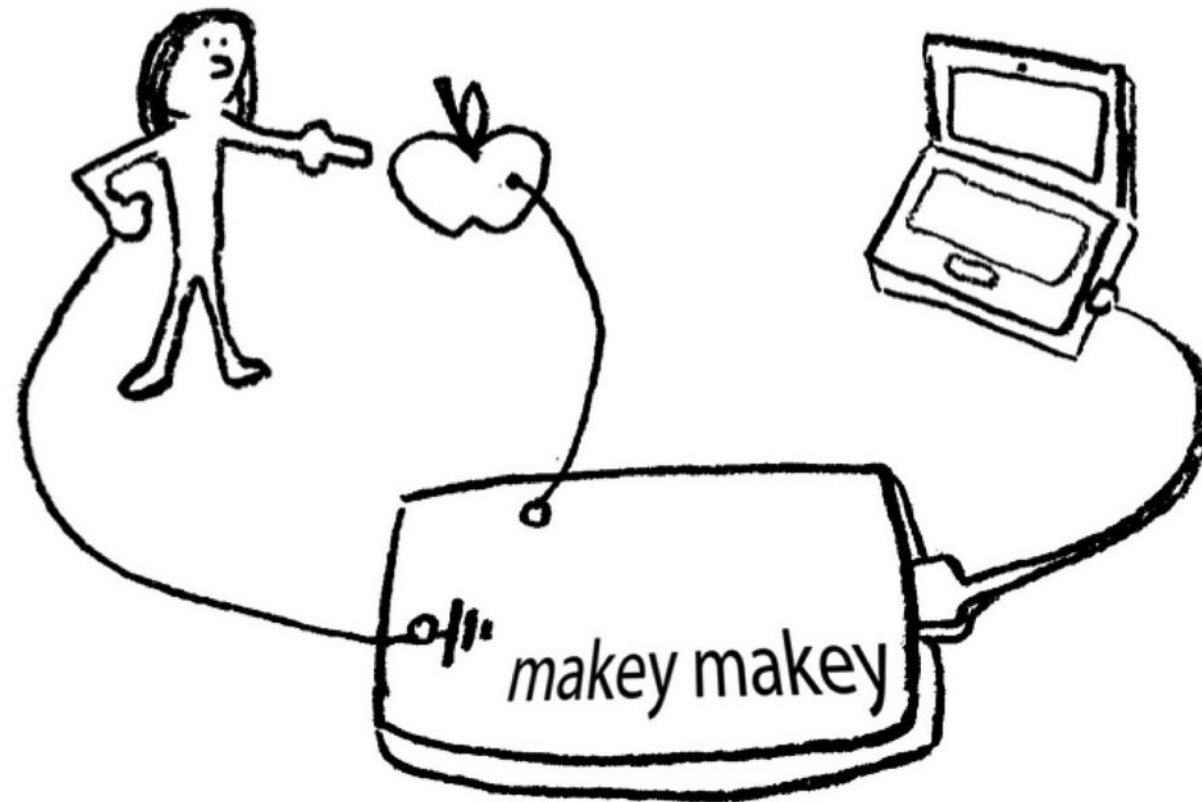
Co-funded by the
Erasmus+ Programme
of the European Union

"The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein."

Names_____

Game controller

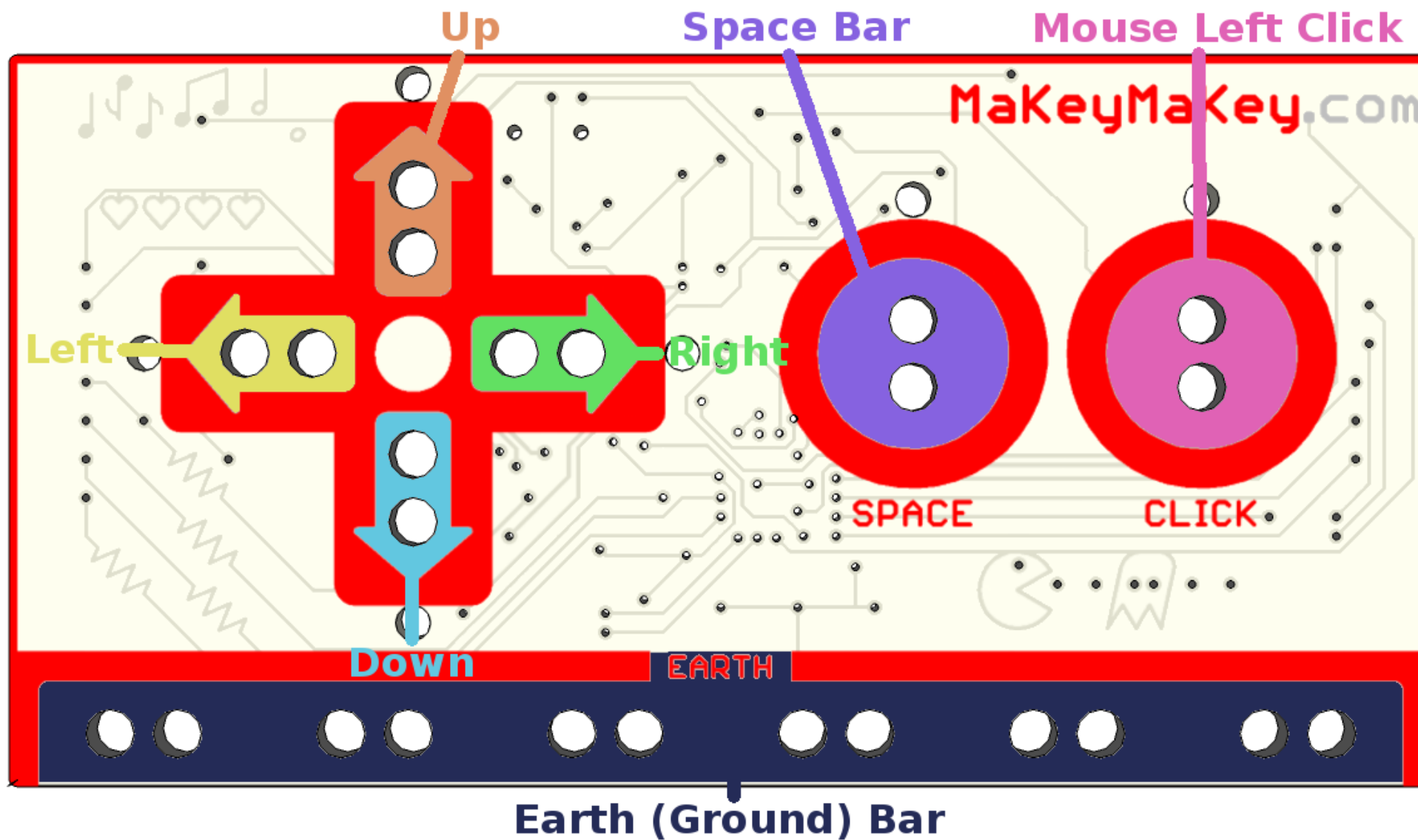
Date_____



Names

Date _____

Makey Makey



Up

Space

Click

Right

Left

Down

