

POWER OF AR AND VR

MAGNETIC CUBES

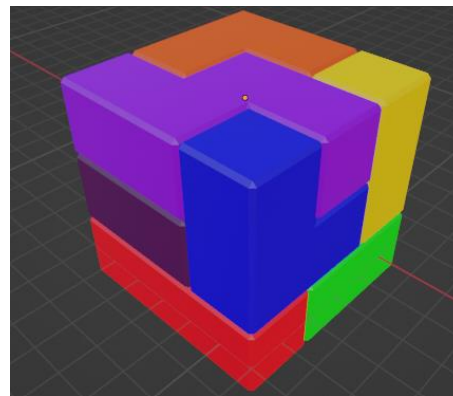
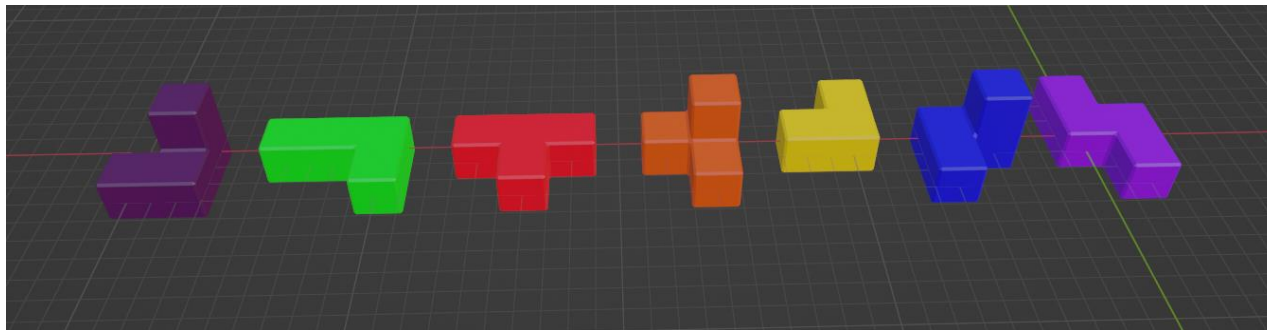


**Co-funded by
the European Union**



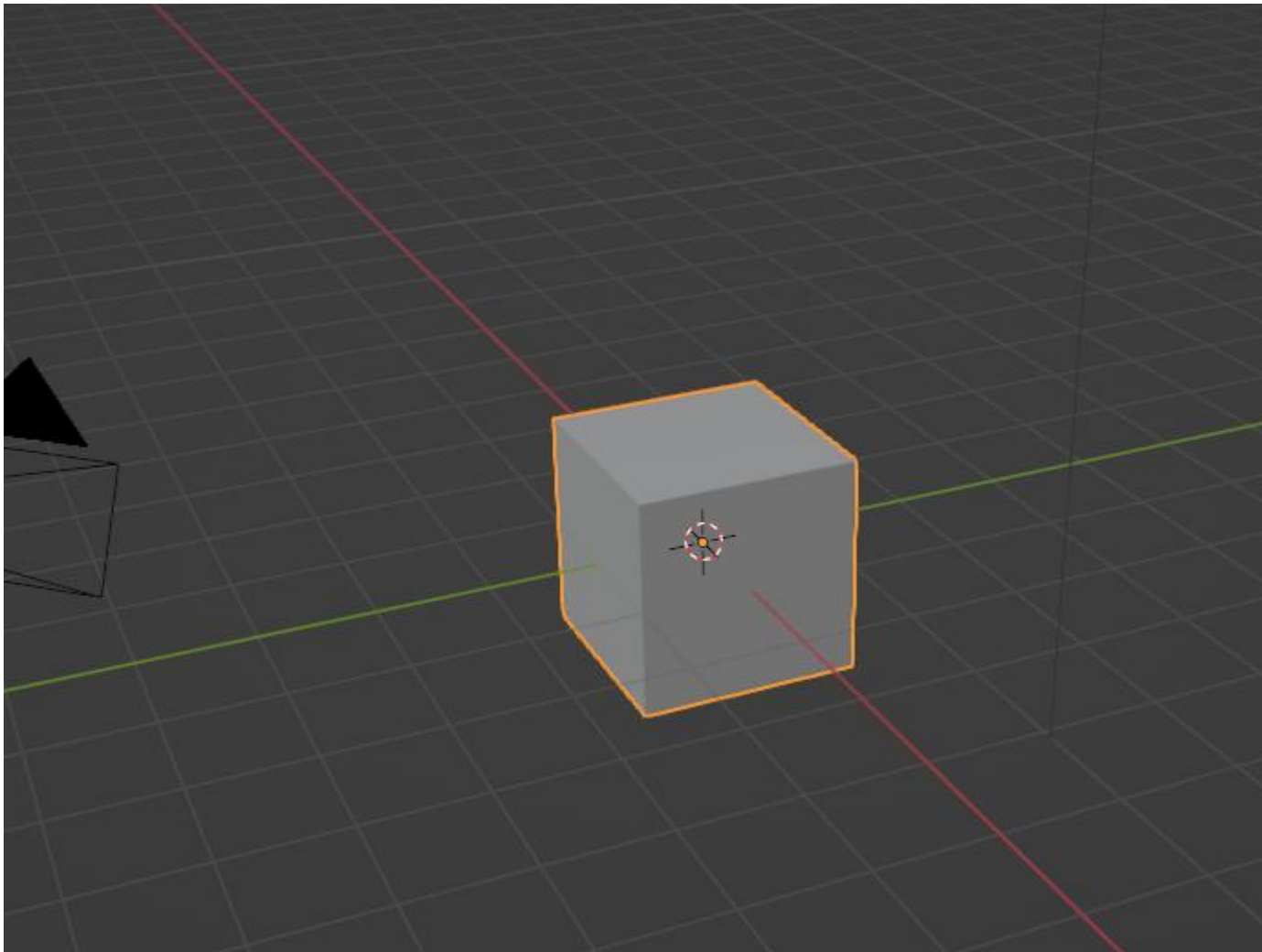
JACEK KAWAŁEK

**OUR GOAL WILL BE TO DRAW AND
THEN CORRECTLY ARRANGING
THE CUBES FROM A POPULAR GAME
FOR CHILDREN**

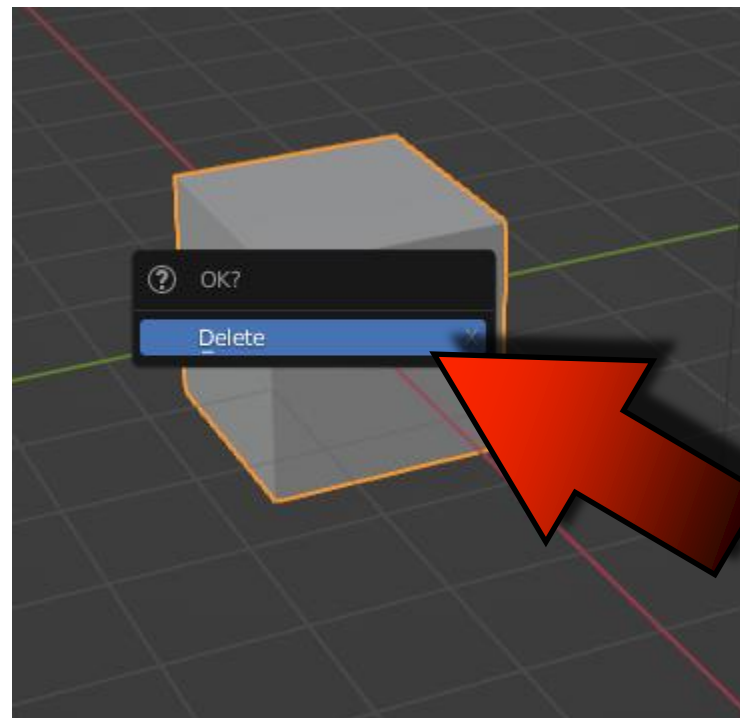


MAGNETIC CUBES

RUNNING BLENDER PROGRAM

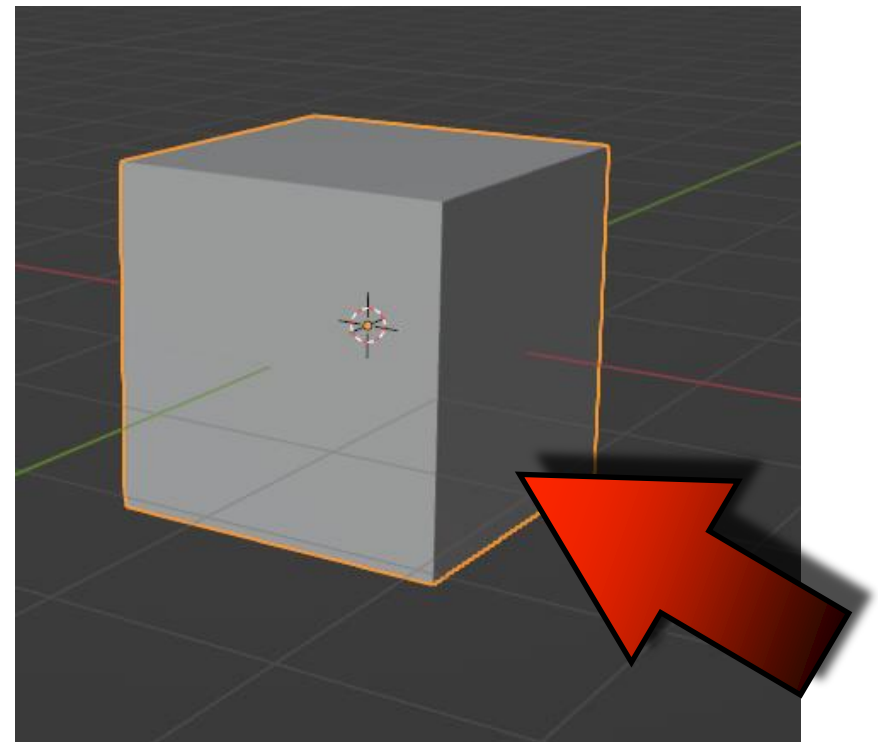
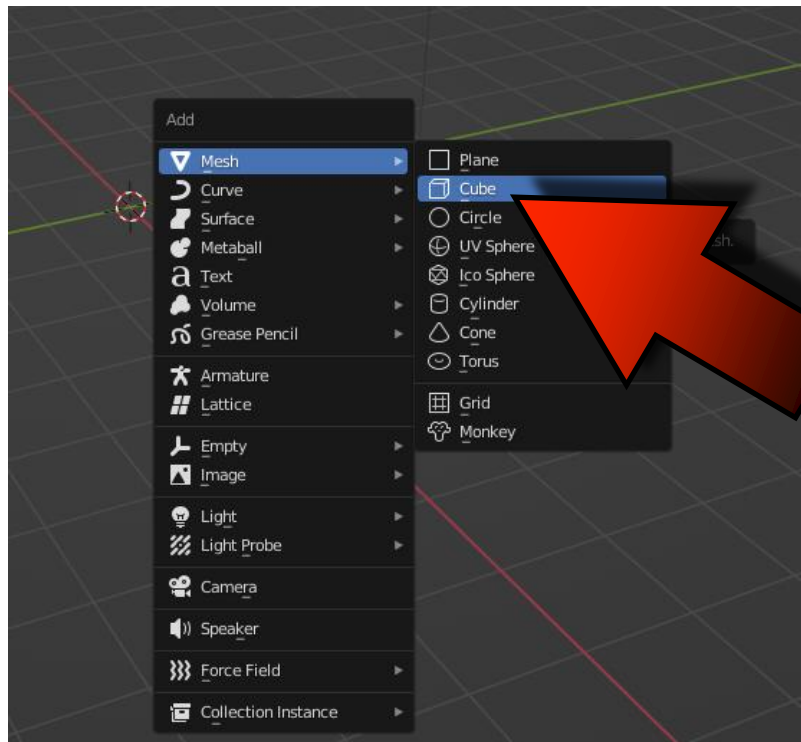


TO LEARN HOW TO CREATE ALL SETTINGS FROM SCRATCH **REMOVE THE CUBE**



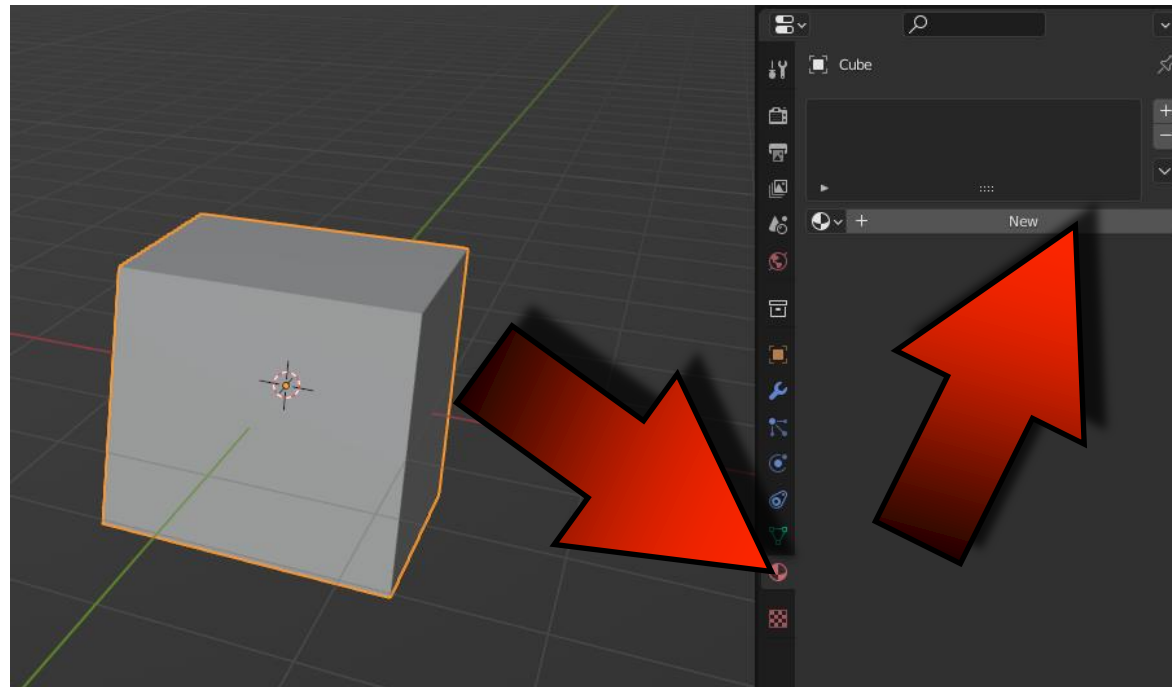
POWER OF AR AND VR

INSERT IT AGAIN WITH **SHIFT+A**



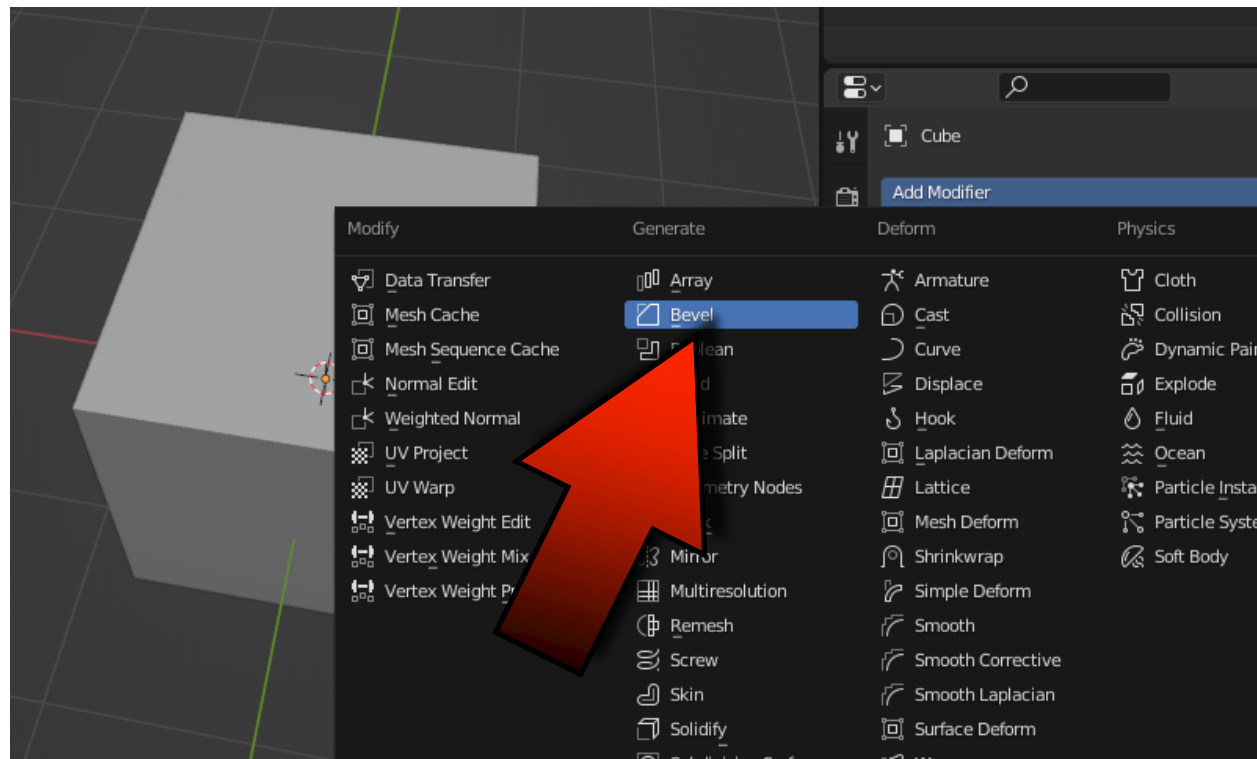
MAGNETIC CUBES

NEWLY INSERT CUBE HAS NO MATERIAL ASSIGNED WHICH WE WILL SET LATER



POWER OF AR AND VR

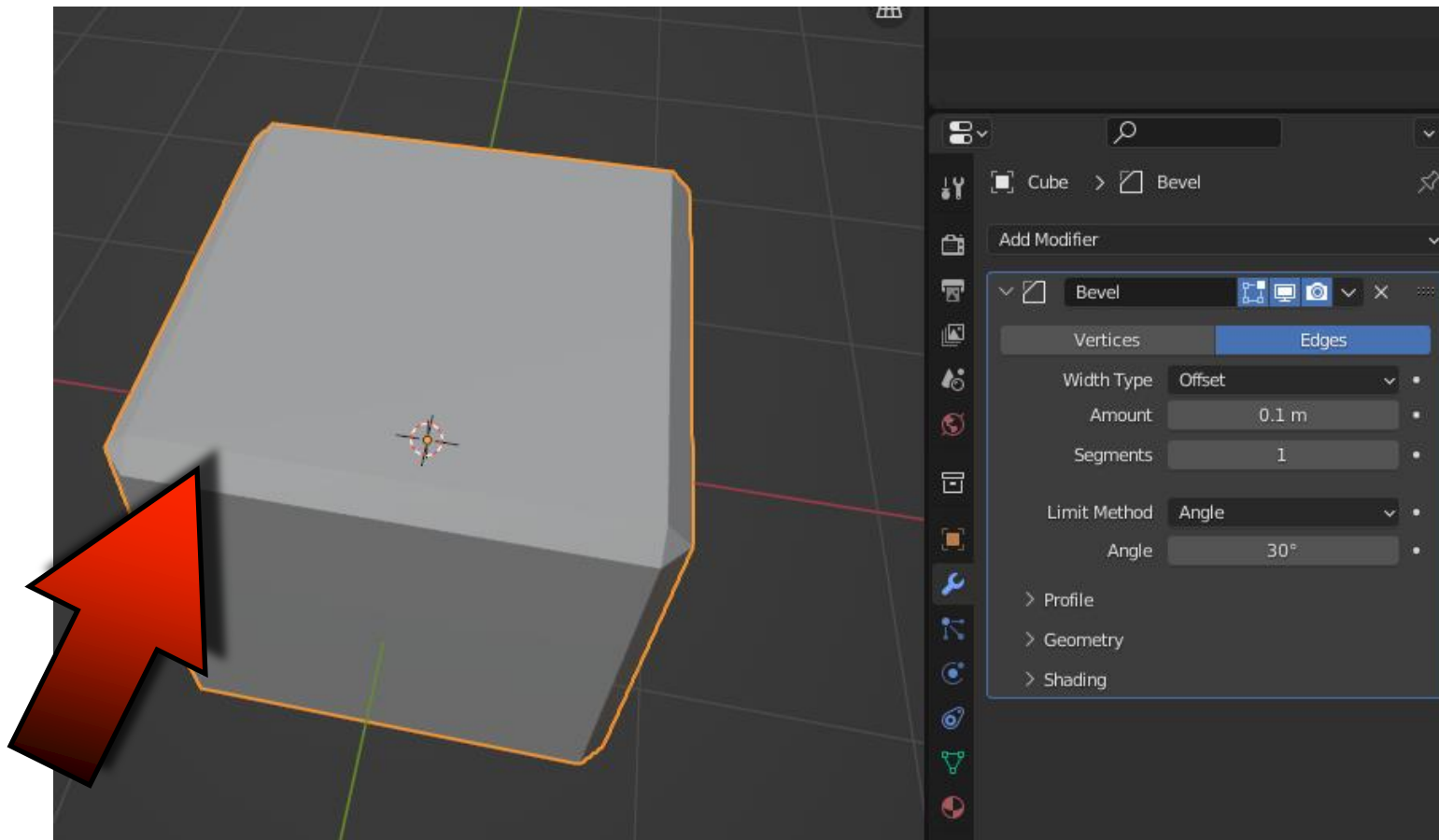
FOR A MORE REAL LOOK YOU CAN ADD **BEVEL MODIFIER**



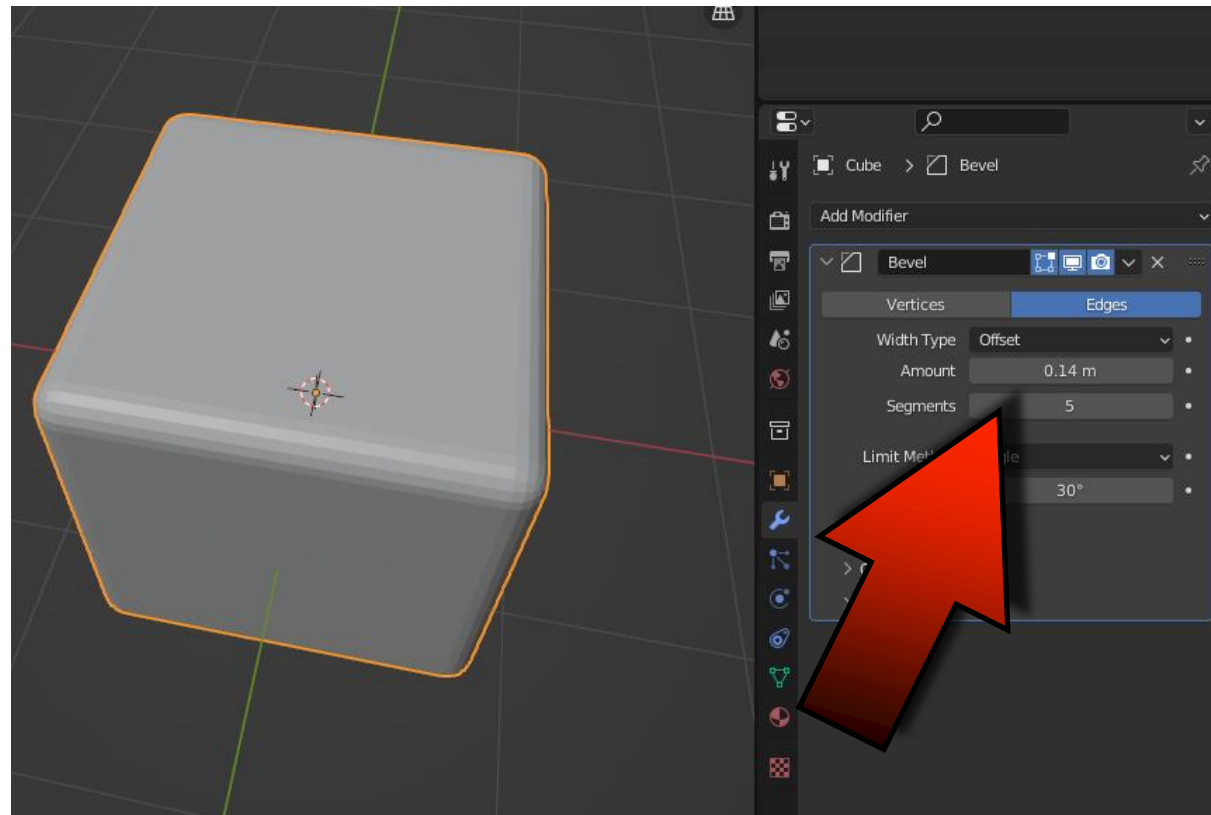
MAGNETIC CUBES

CAUSES

ROUNDING OF THE EDGES

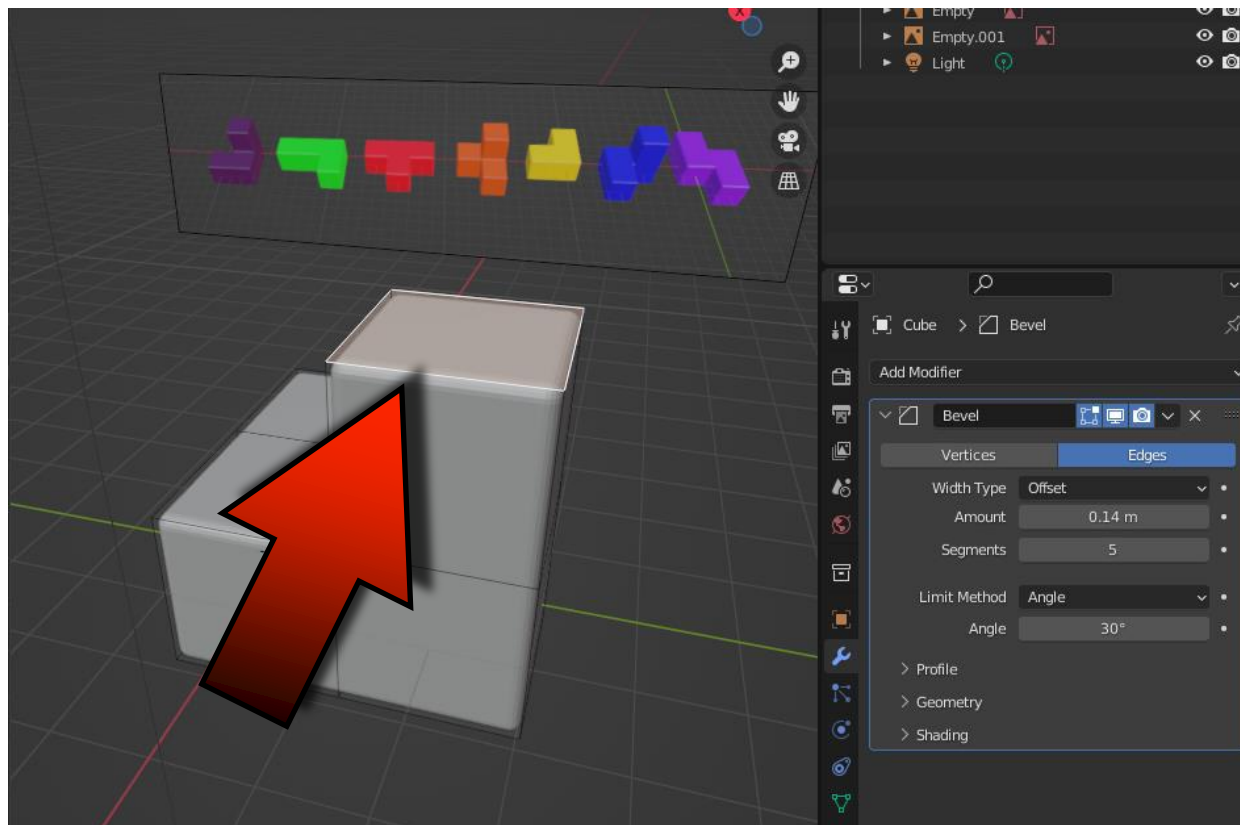


IN THE SEGMENTS WINDOW WE CAN CHANGE THE NUMBER OF EDGES ON THE BEVEL



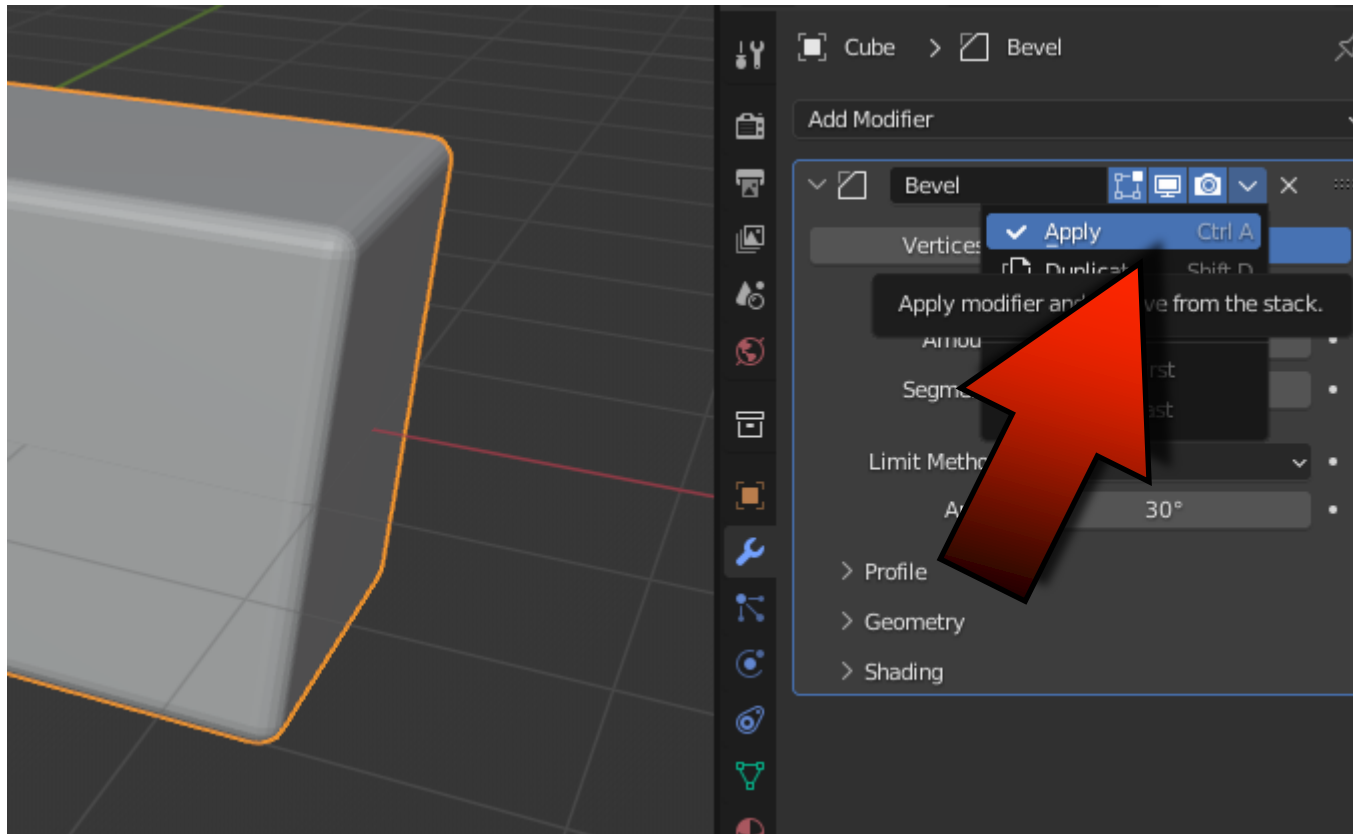
POWER OF AR AND VR

**HOWEVER, WHEN CREATING
A MODEL, REMEMBER
NOT TO ACCEPT THE MODIFIER
DURING WORK**

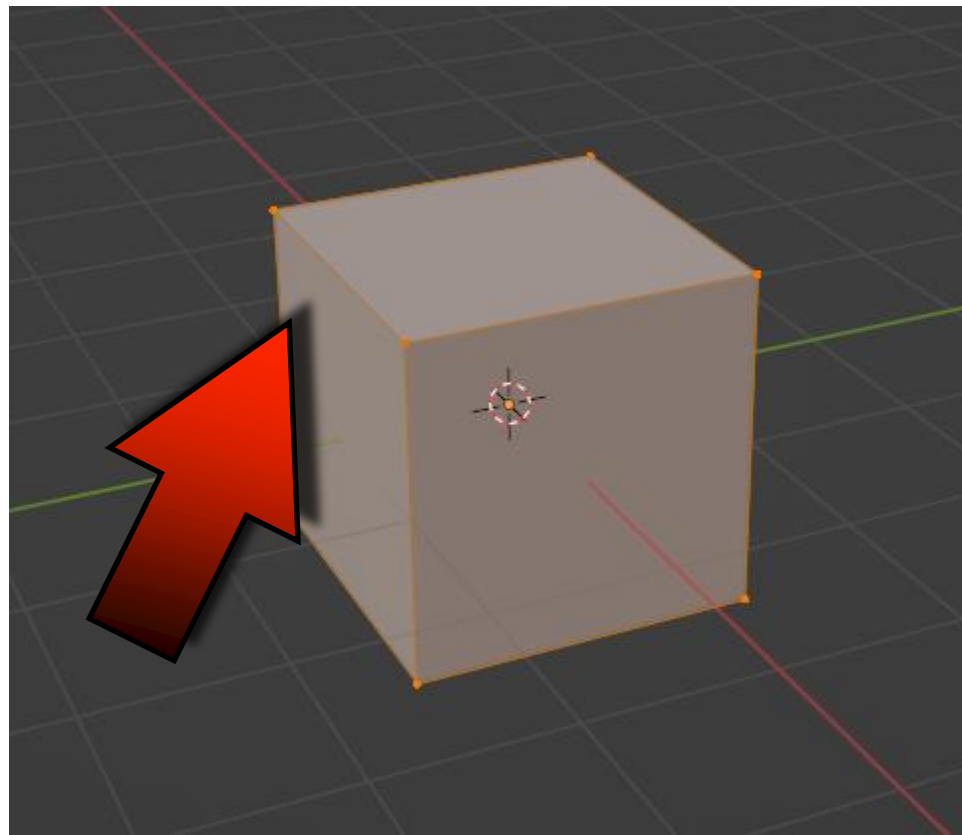


MAGNETIC CUBES

**THIS OPERATION IS PERFORMED
ONLY AT THE VERY END
IN OBJECT MODE**



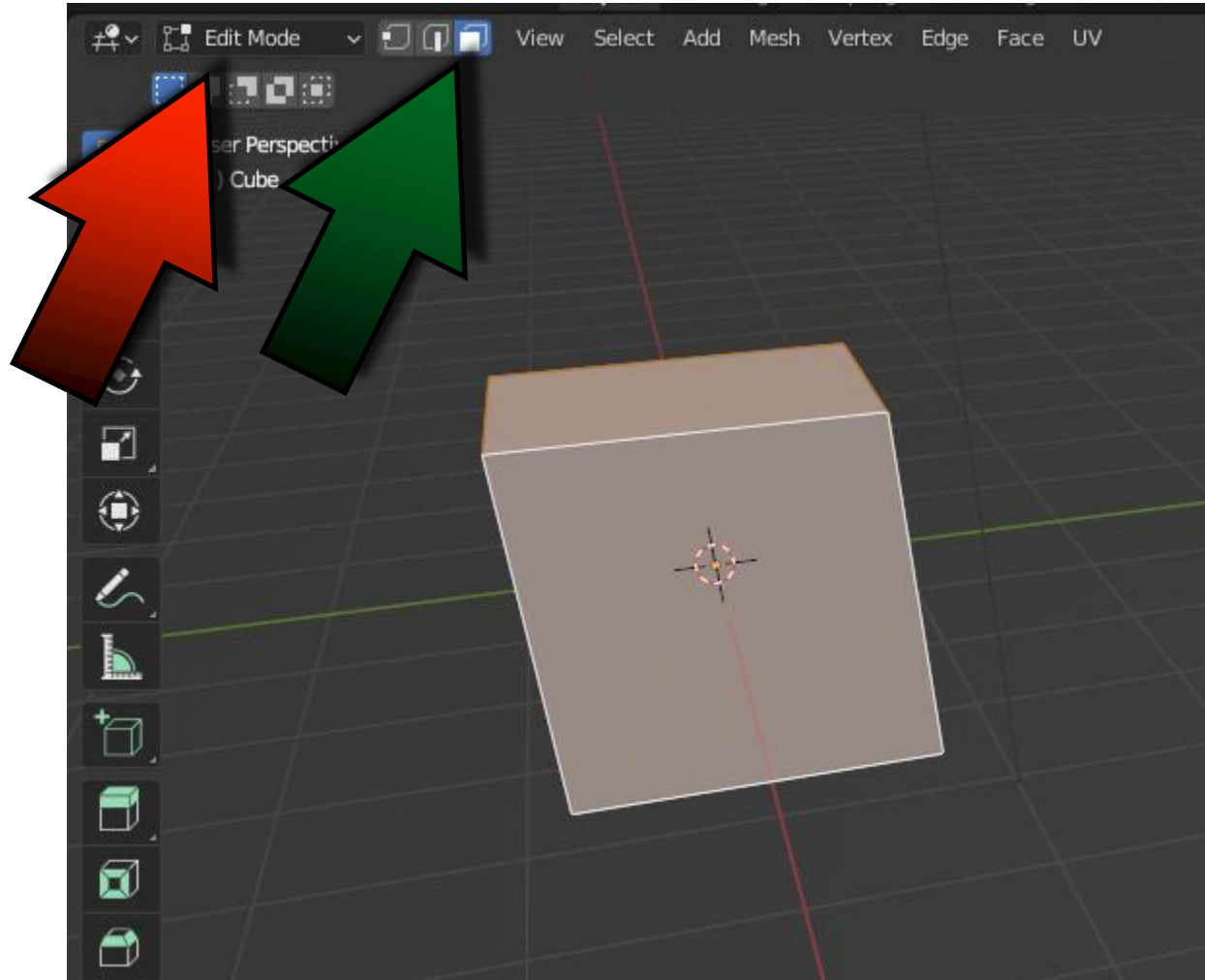
**TO SIMPLIFY THIS TRAINING,
I WILL NOT USE THE BEVEL
MODIFIER**



MAGNETIC CUBES

POWER OF AR AND VR

IN EDIT MODE WE CHOOSE SELECTING WALLS



MAGNETIC CUBES

USING THE KEYS

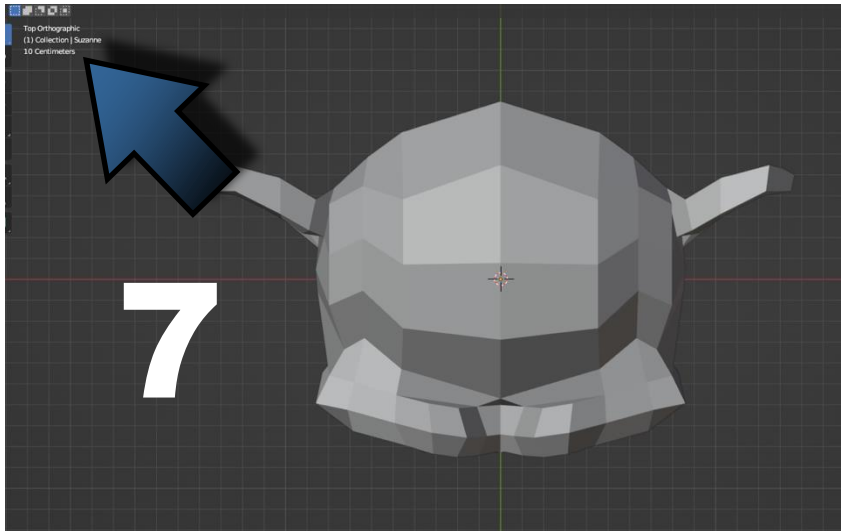
1 - 3 - 7

ON THE NUMERIC KEYPAD WE CAN
SEE THE VIEW FROM
THE Y - X - Z AXIS

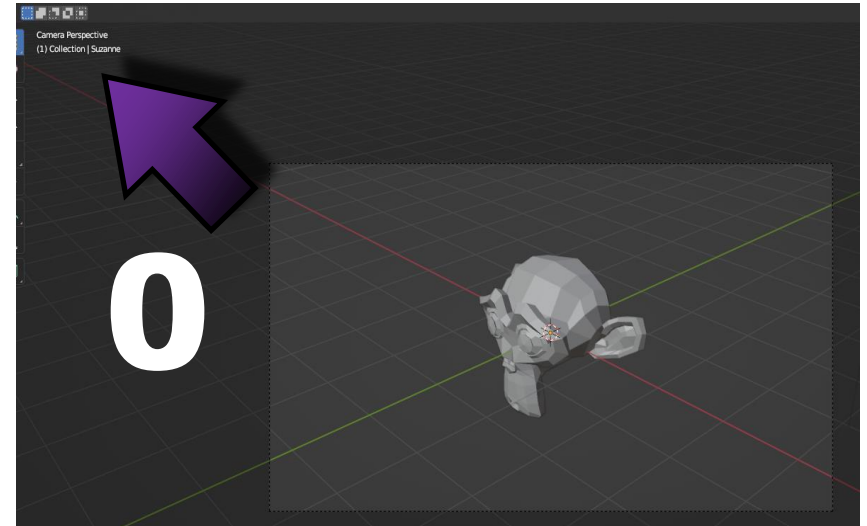


MAGNETIC CUBES

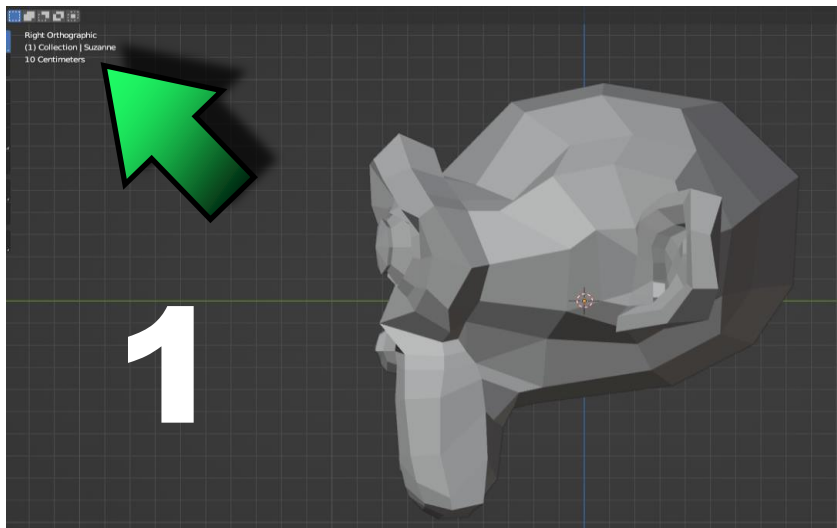
TOP ORTOGRAPHIC



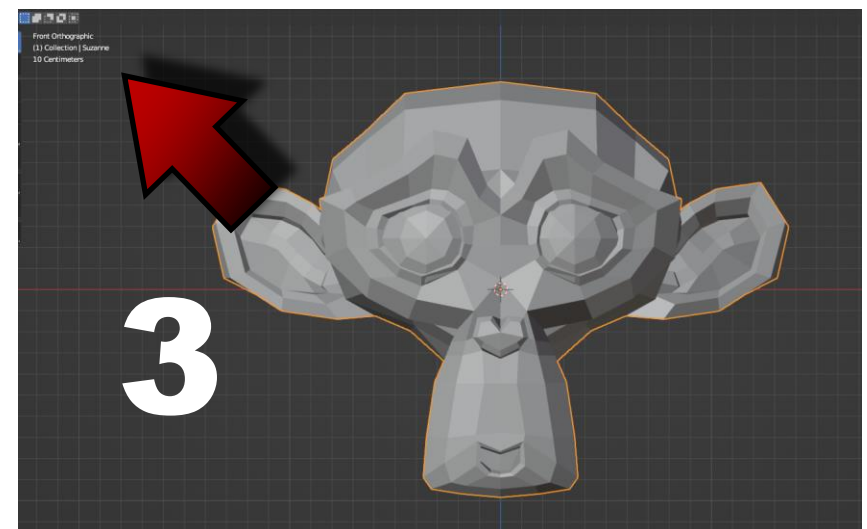
CAMERA PRESPECTIVE



RIGHT ORTOGRAPHIC



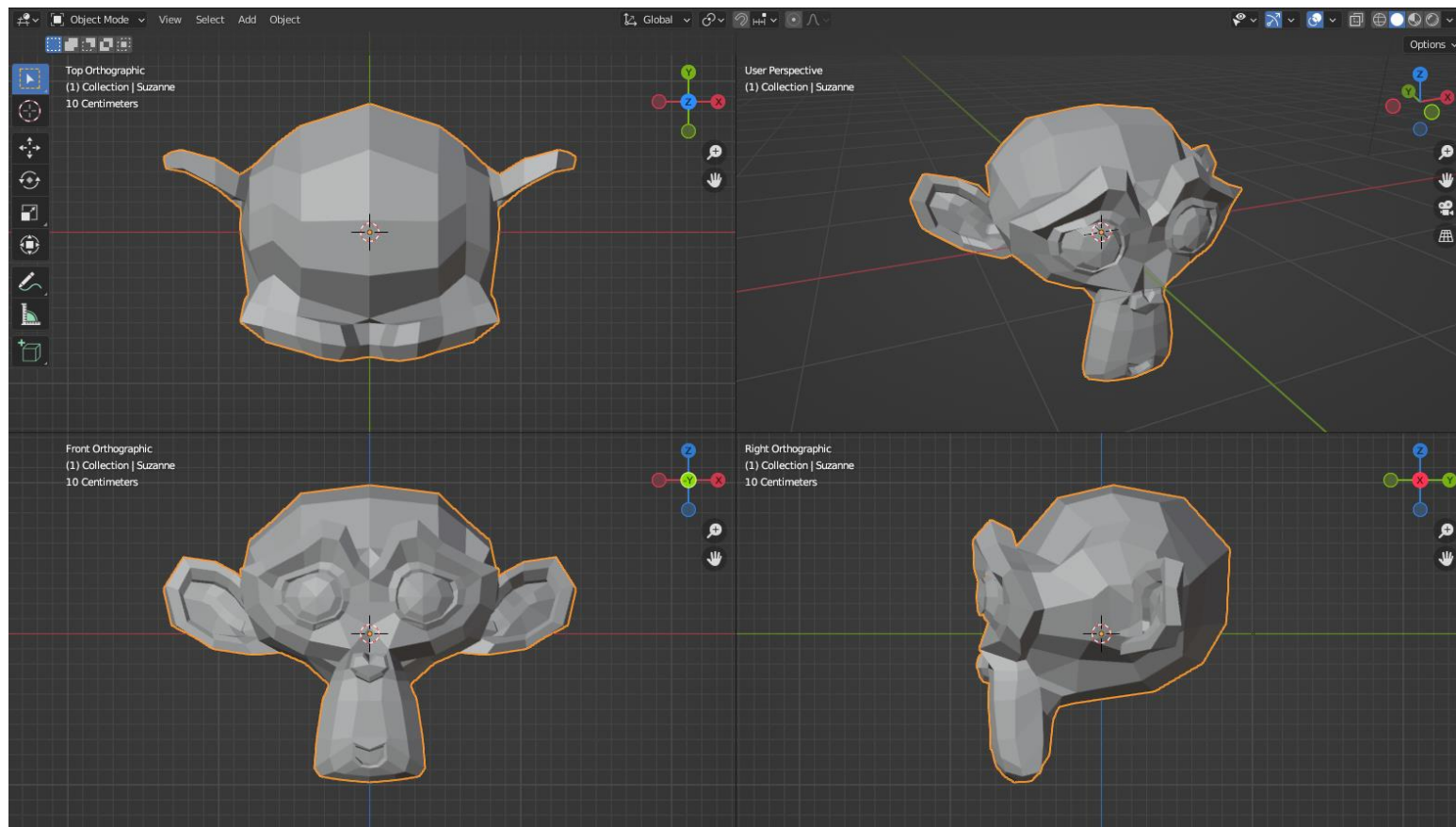
FRONT ORTOGRAPHIC



POWER OF AR AND VR

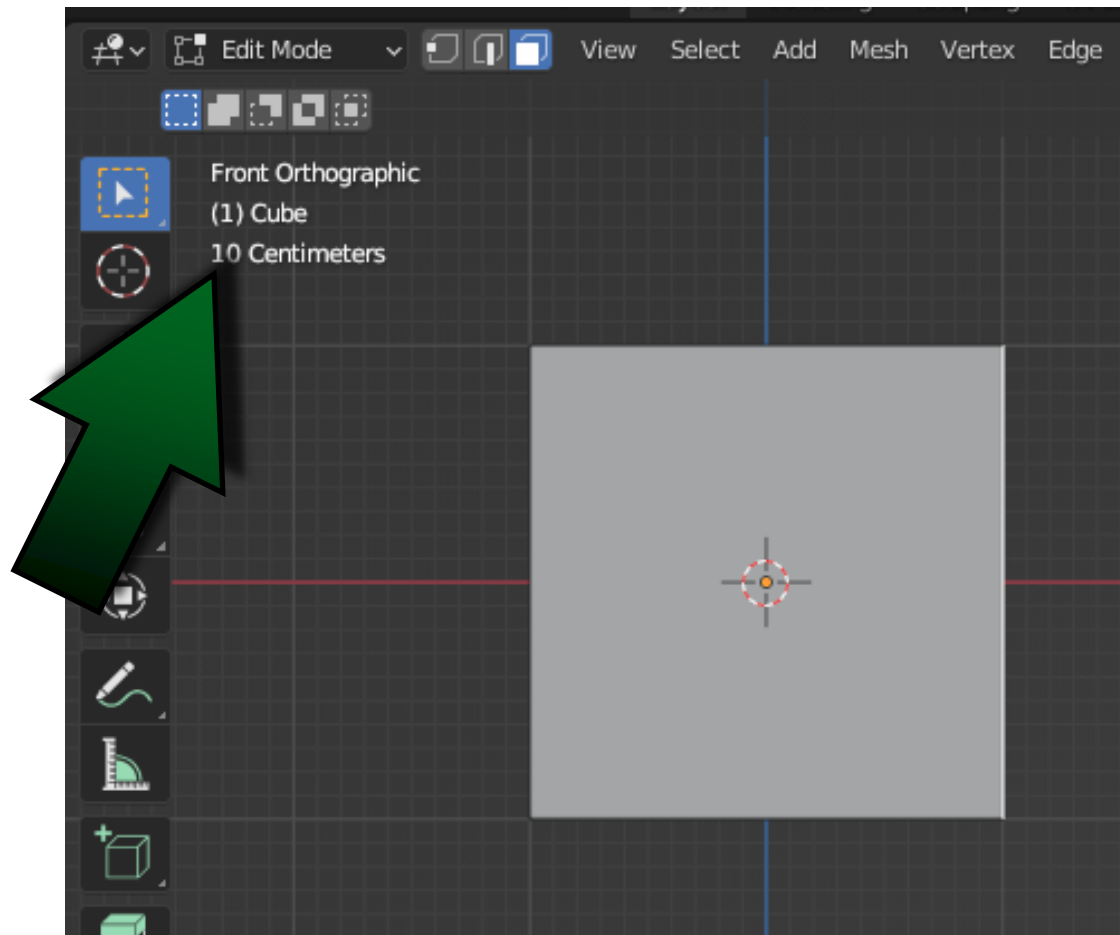
CTRL+ALT+Q

WE SPLIT THE SCREEN INTO THE SAME VIEWS



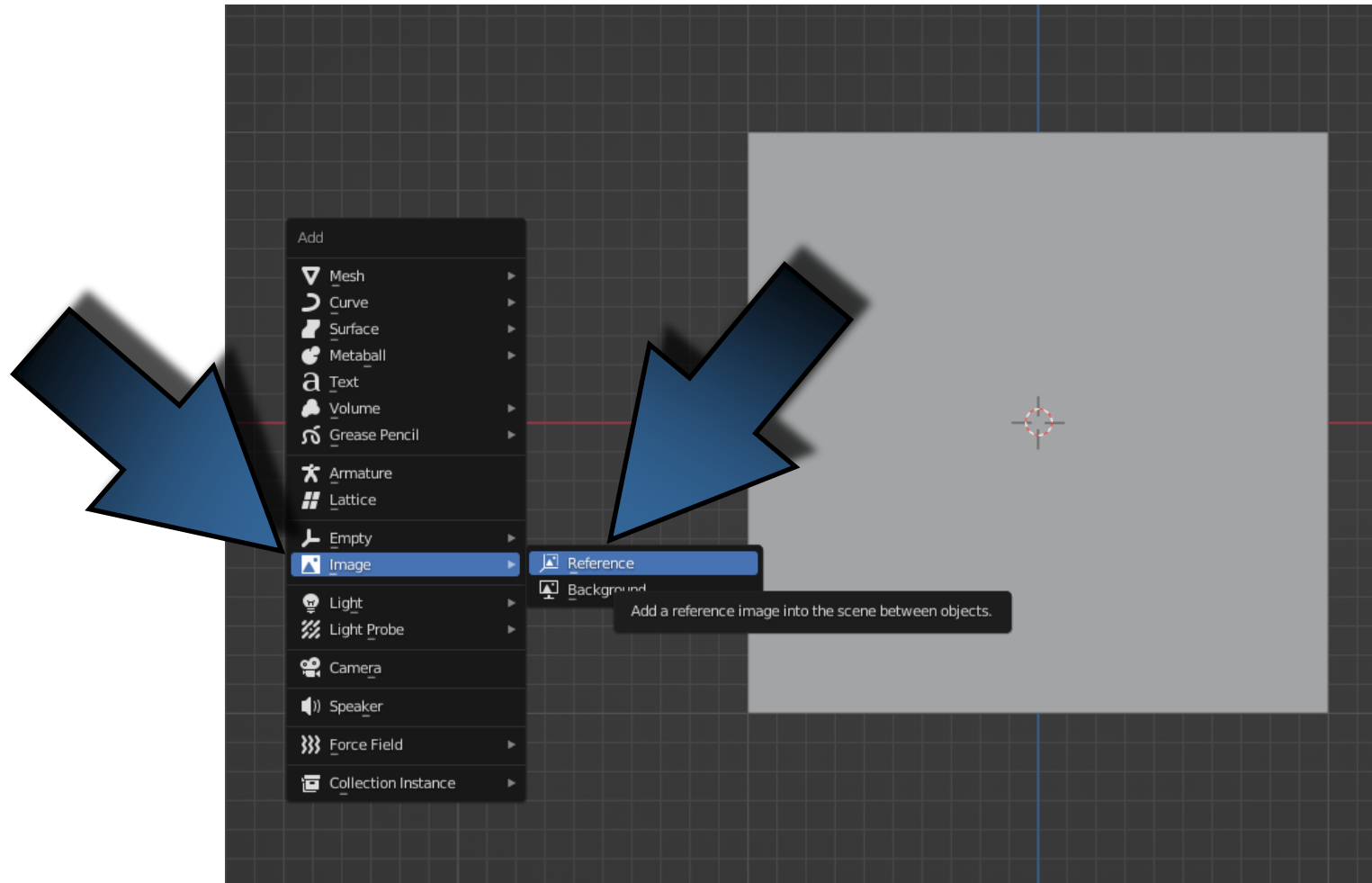
MAGNETIC CUBES

LET'S PRESS **KEY 1** FROM THE NUMERIC KEYPAD



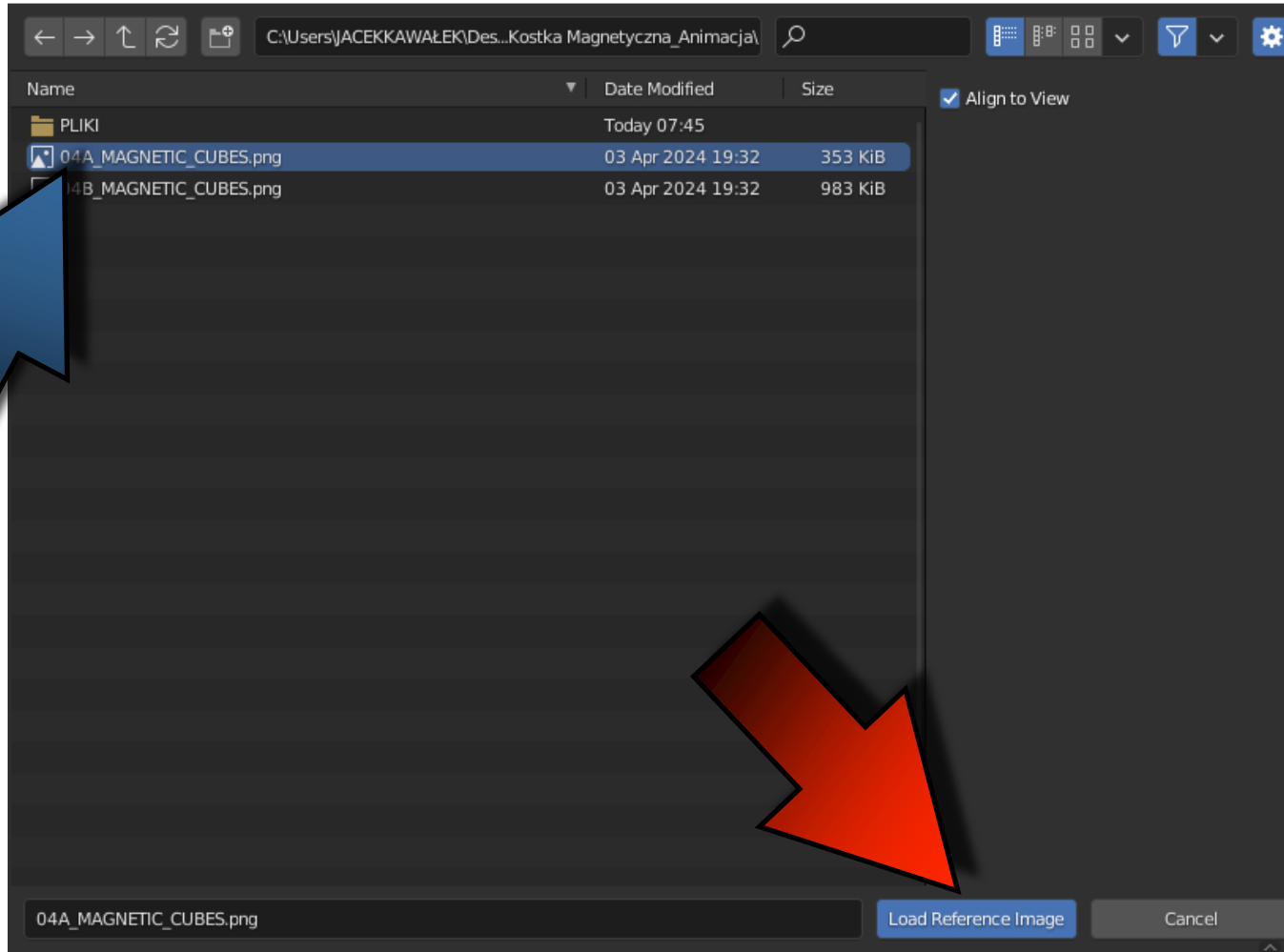
POWER OF AR AND VR

USING **SHIFT+A** LET'S SELECT **IMAGE / REFERENCE**



MAGNETIC CUBES

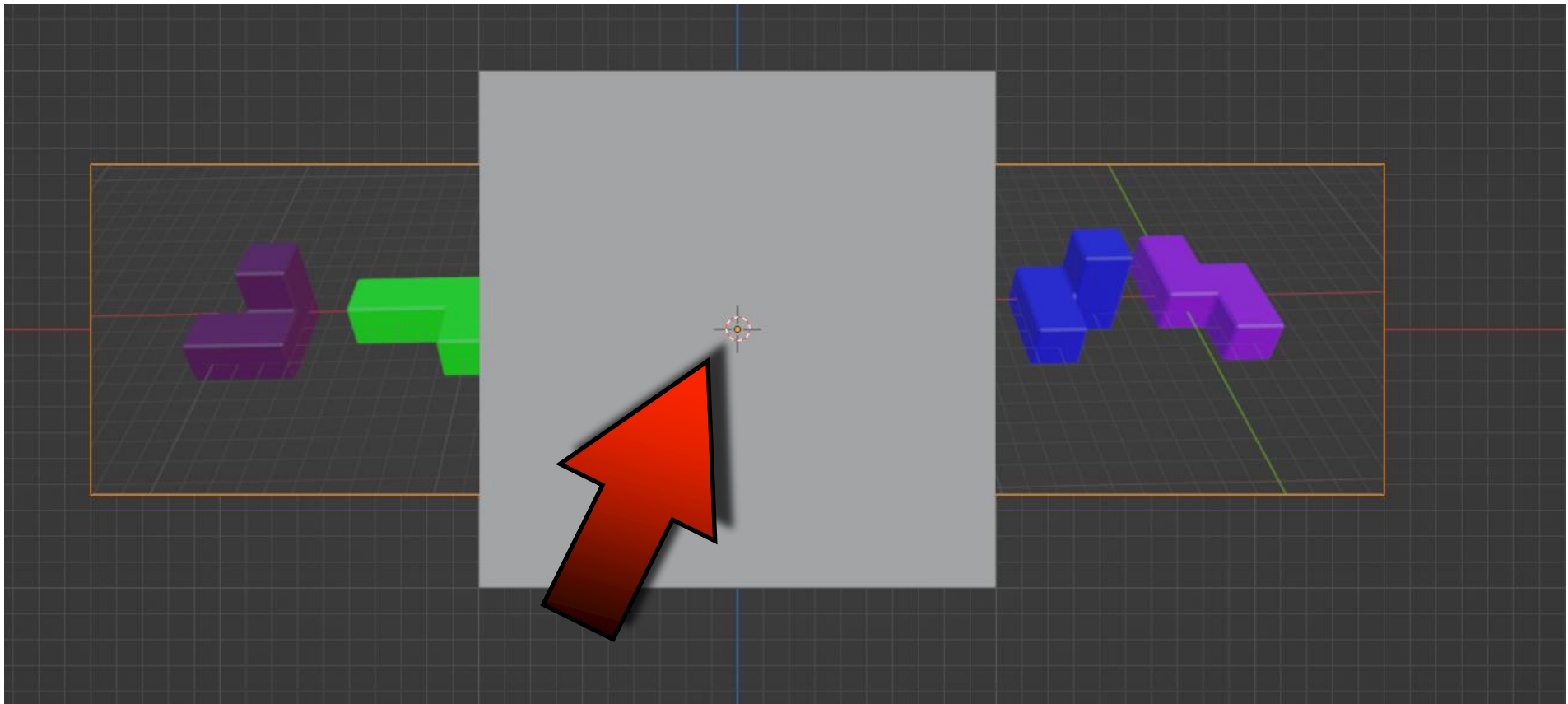
LET'S SELECT THE FILE WITH THE DRAWING AND **LOAD IT**



MAGNETIC CUBES

POWER OF AR AND VR

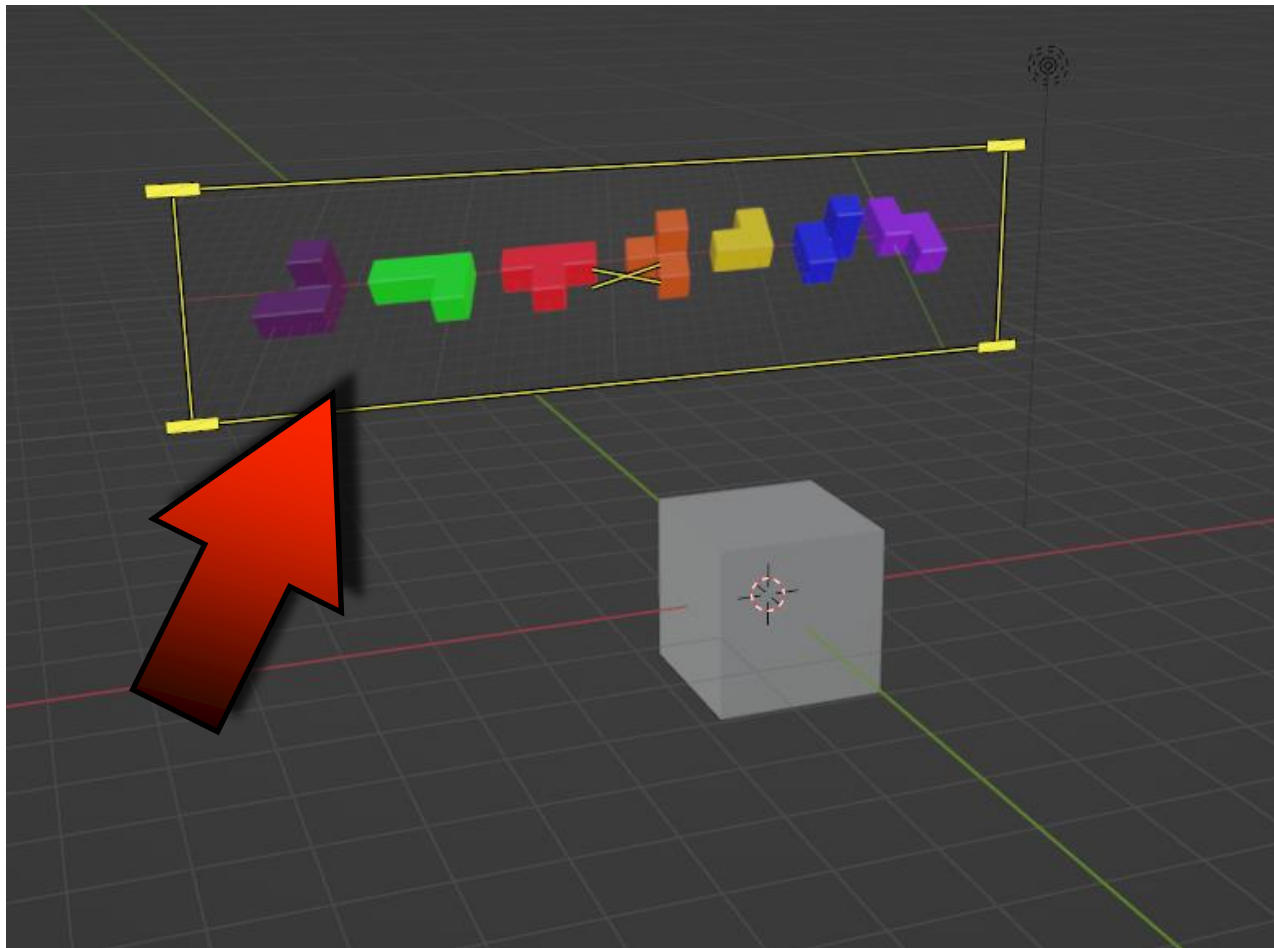
**THE DRAWING IS INSERT INTO
THE CENTER
OF THE COORDINATE SYSTEM**



MAGNETIC CUBES

POWER OF AR AND VR

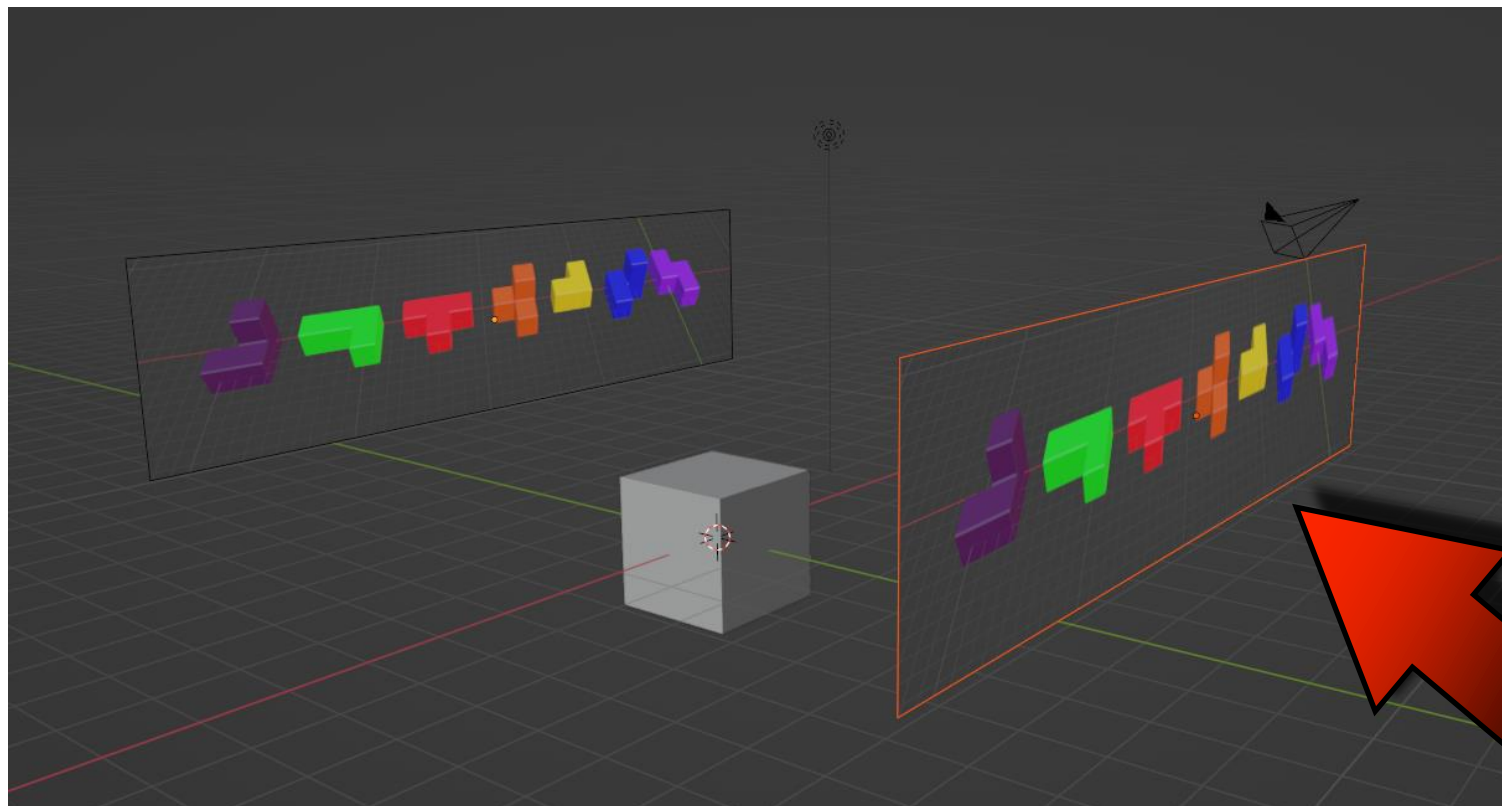
WITH THE G KEY
WE CAN MOVE IT
WITH THE R KEY
WE CAN ROTATE IT



MAGNETIC CUBES

POWER OF AR AND VR

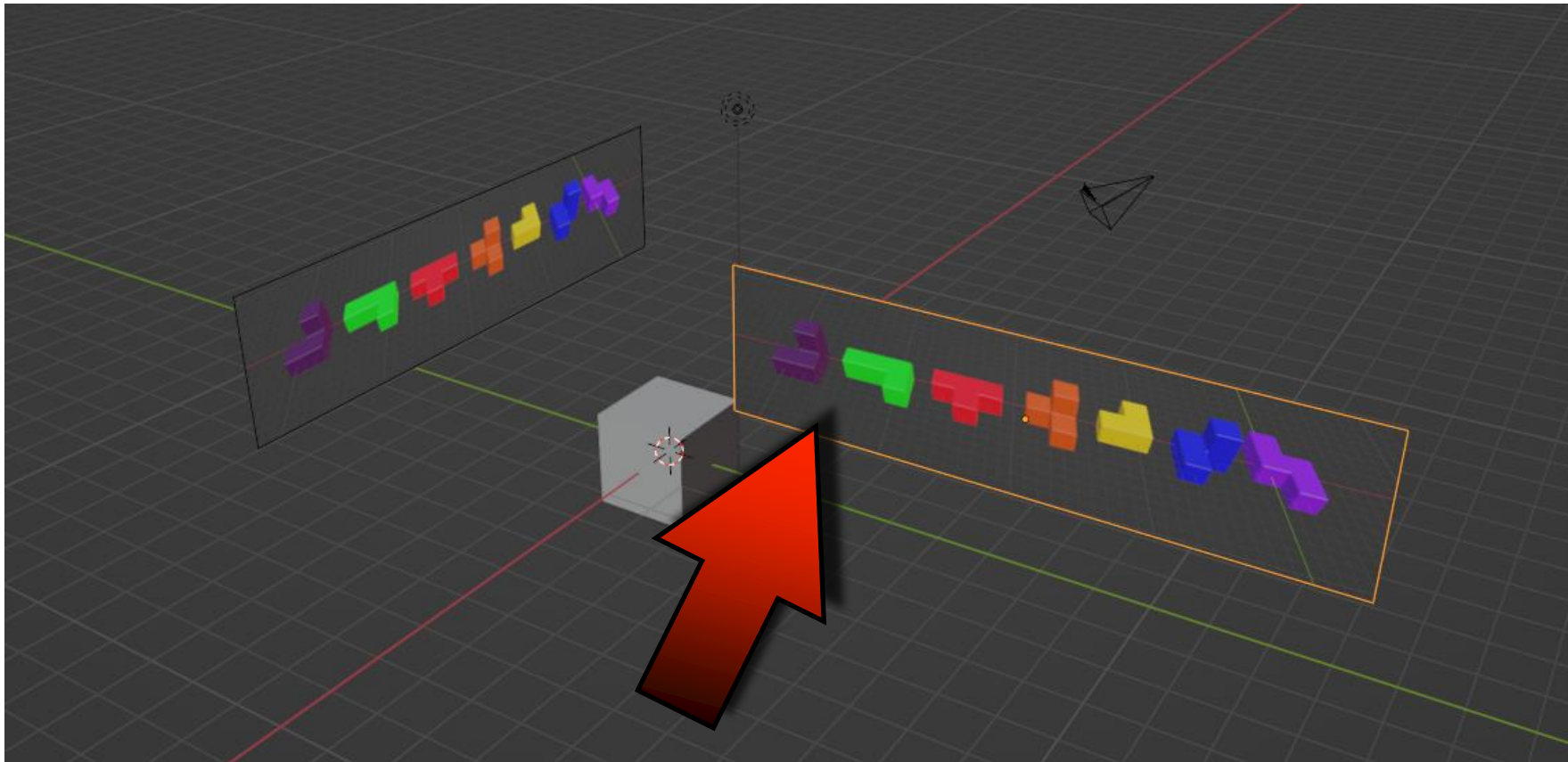
WE CAN COPY IT
CTRL+C - CTRL+V
OR CLONE IT WITH
SHIFD+D



MAGNETIC CUBES

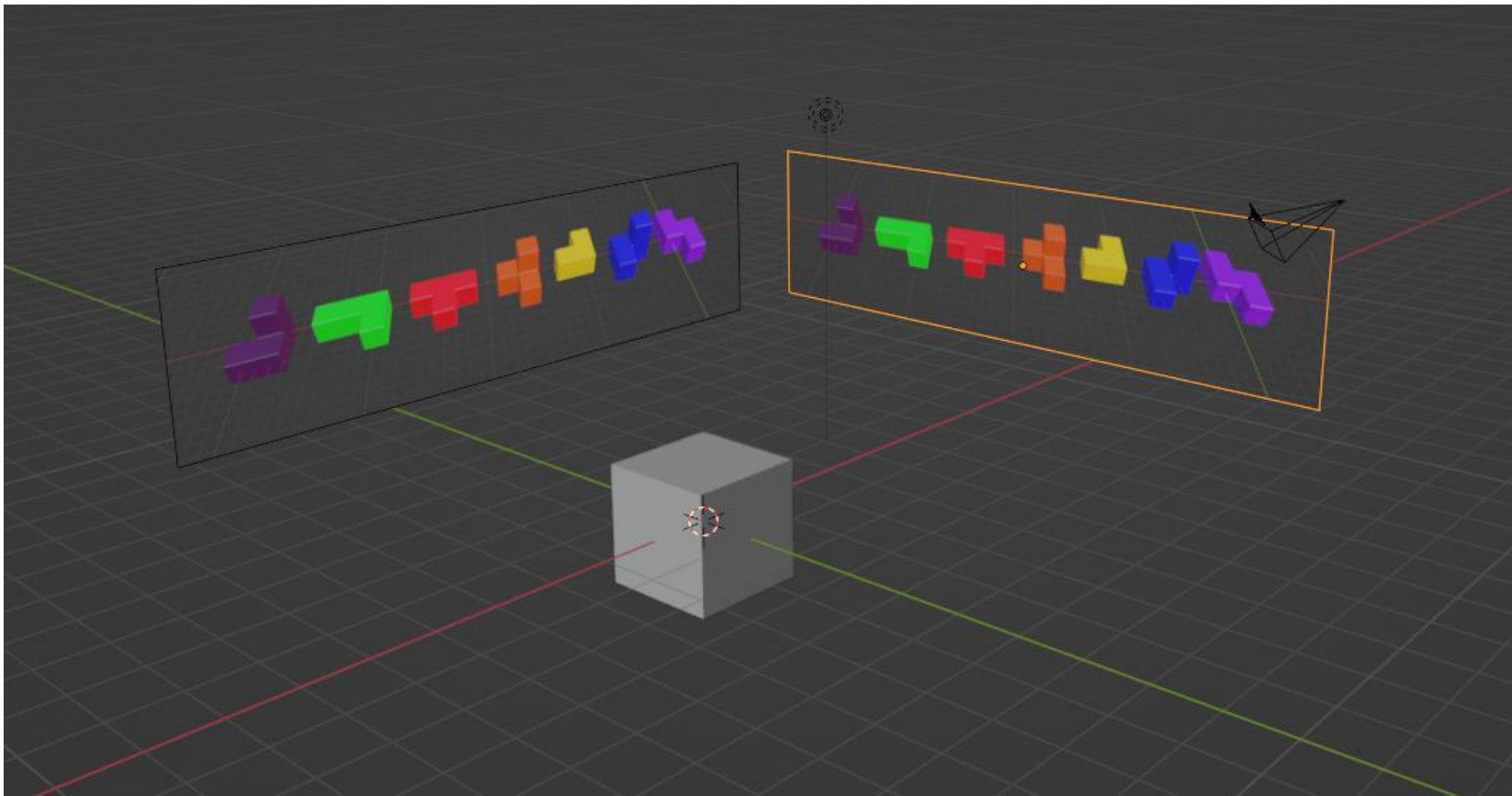
**WE CAN ROTATE THE DRAWING BY A SPECIFIC
ANGLE, FOR EXAMPLE 90 DEGREES,
BY CLICKING ONE BY ONE**

R – Z – 90 – ENTER



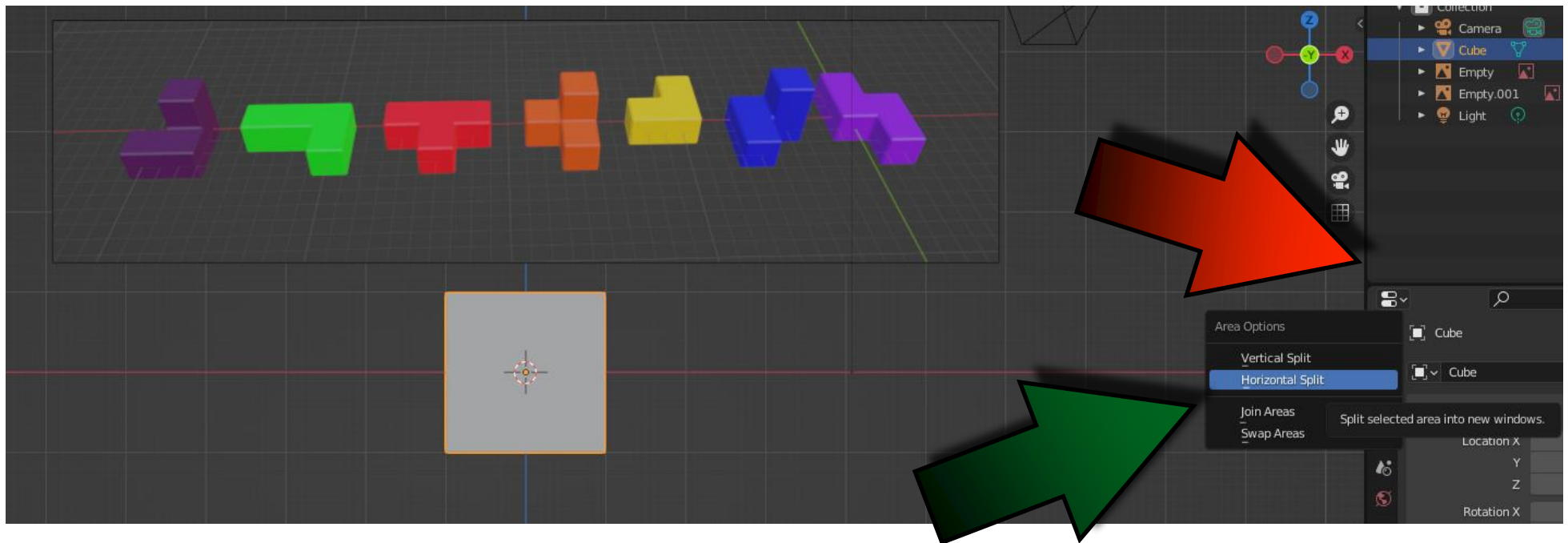
MAGNETIC CUBES

EVERYONE CAN INDIVIDUALLY SET THEIR OWN POSITION



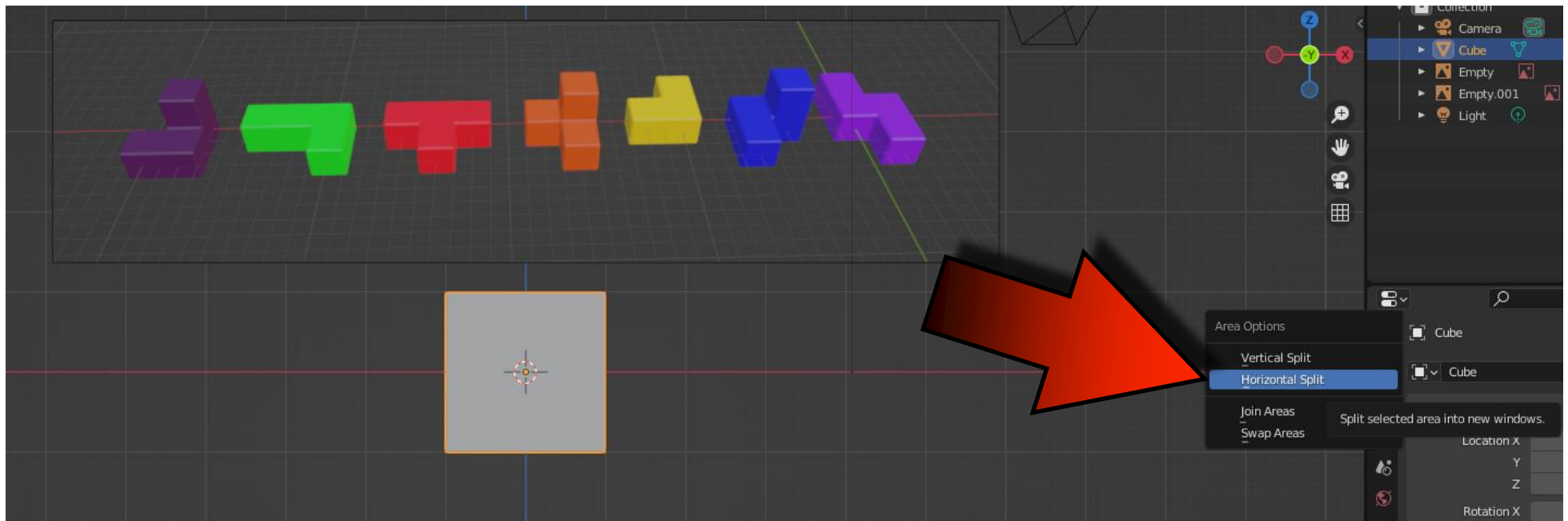
MAGNETIC CUBES

WE CAN ALSO SPLIT THE SCREENS
MOVE THE MOUSE OVER THE EDGE
AND CLICK
RIGHT MOUSE BUTTON
RIGHT MOUSE BUTTON

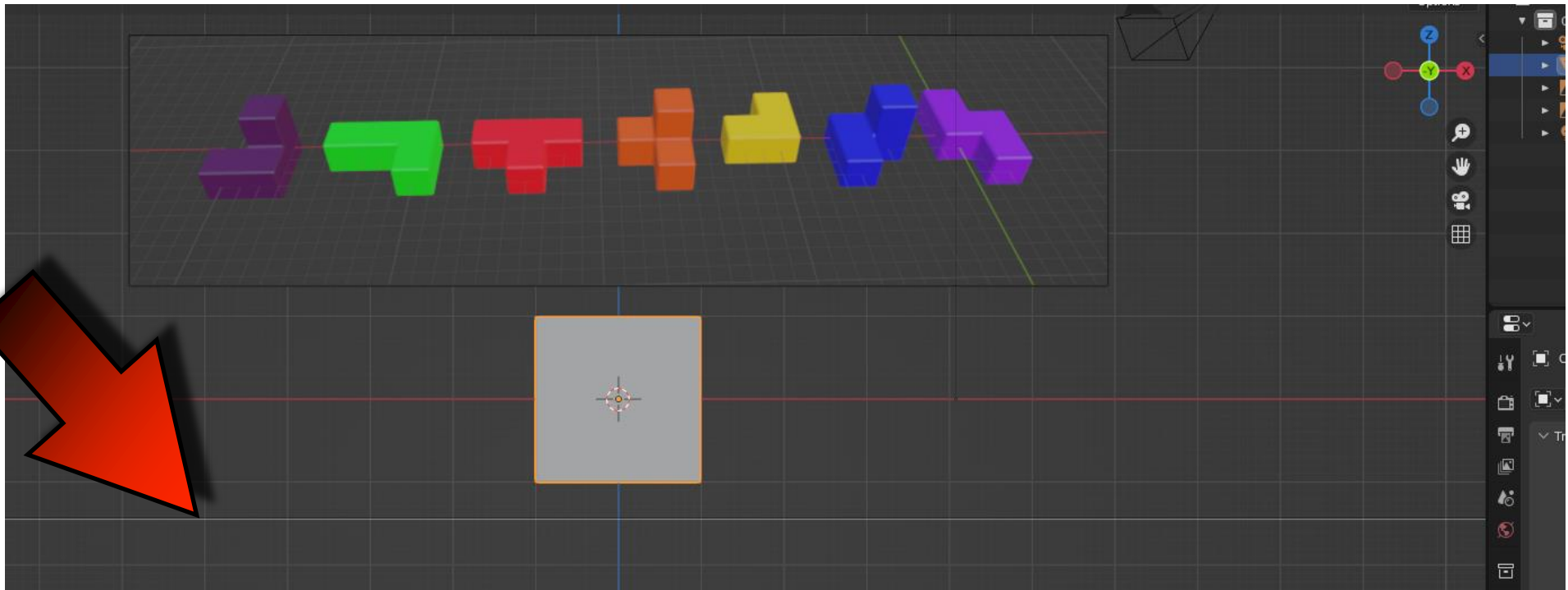


MAGNETIC CUBES

LET'S CHOOSE AN OPTION HORIZONTAL SPLIT



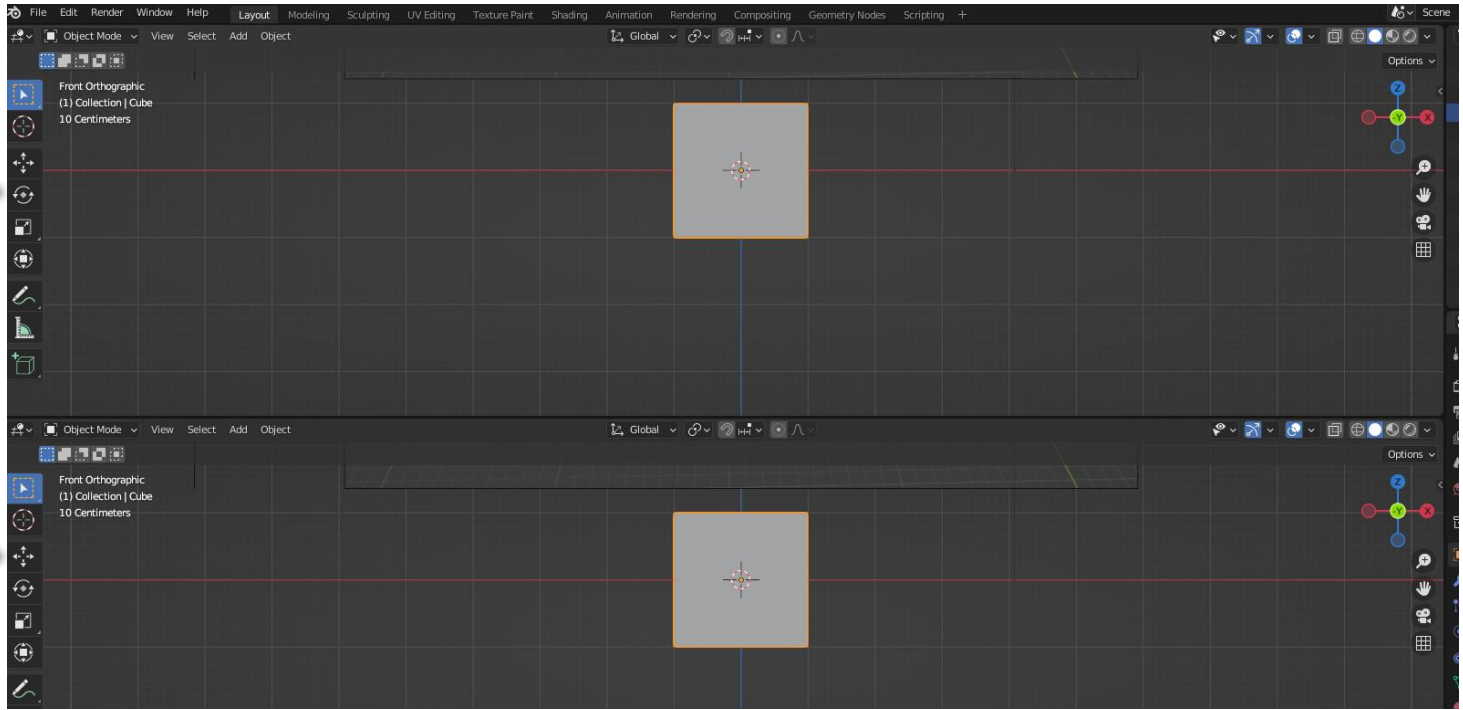
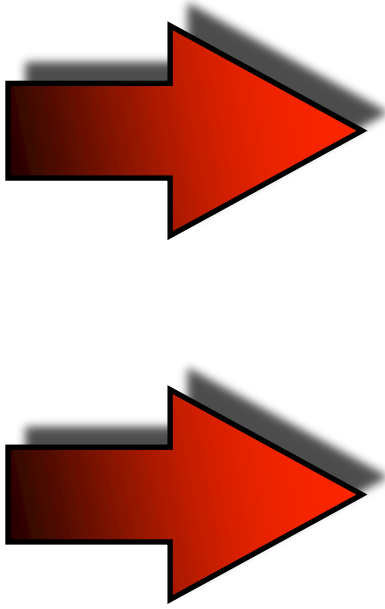
A THIN WHITE LINE WILL APPEAR
LET'S SET IT IN THE CENTER
OF THE SCREEN
AND CONFIRM IT WITH THE MOUSE



MAGNETIC CUBES

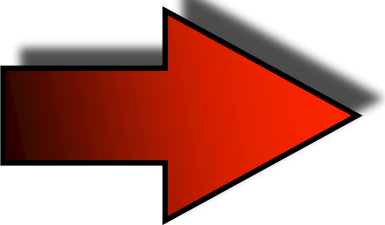
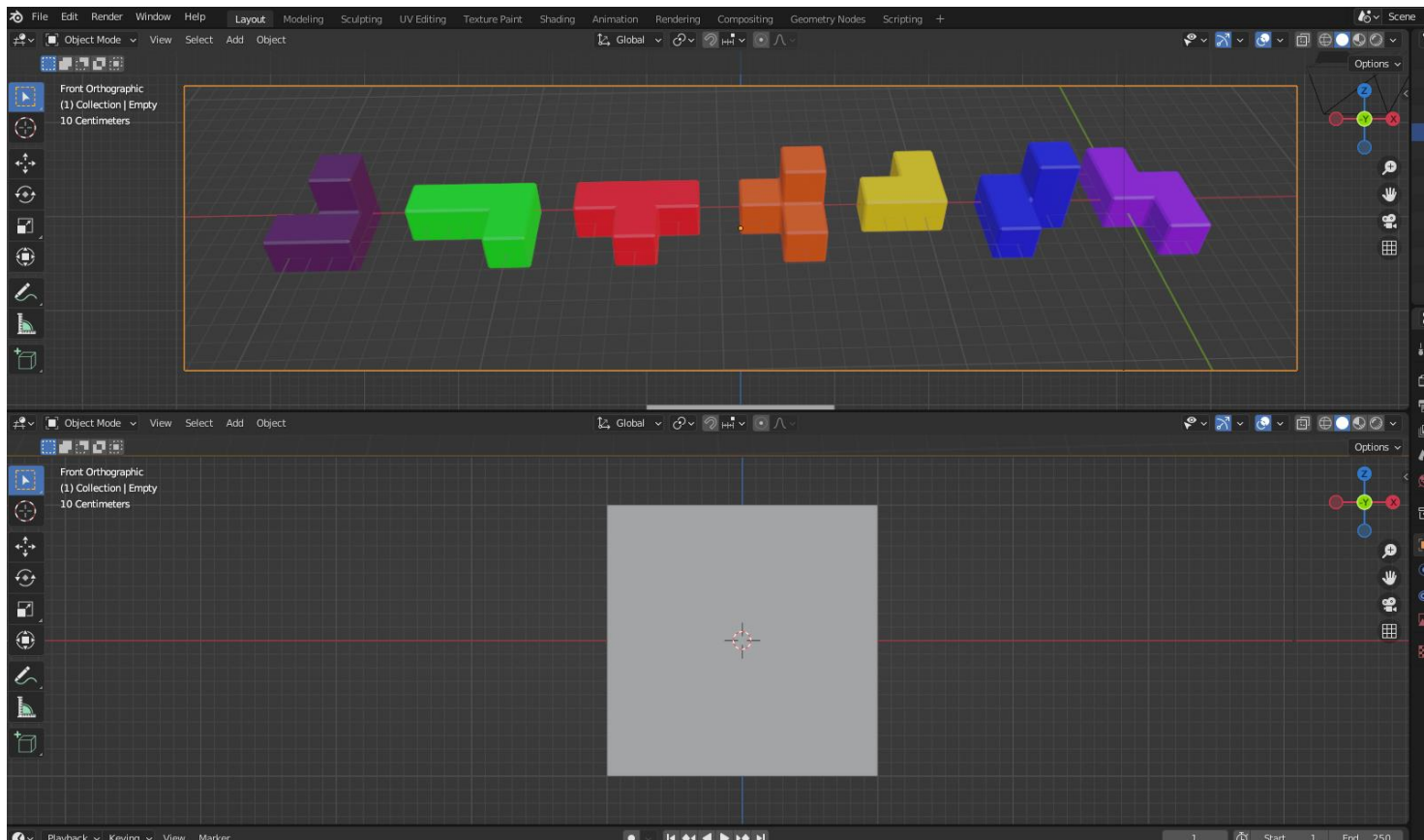
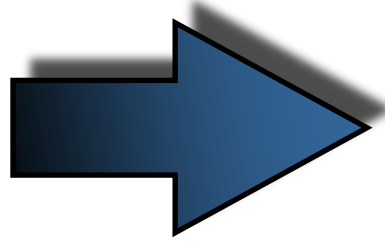
POWER OF AR AND VR

THE SCREEN WILL BE DIVIDED INTO TWO PARTS

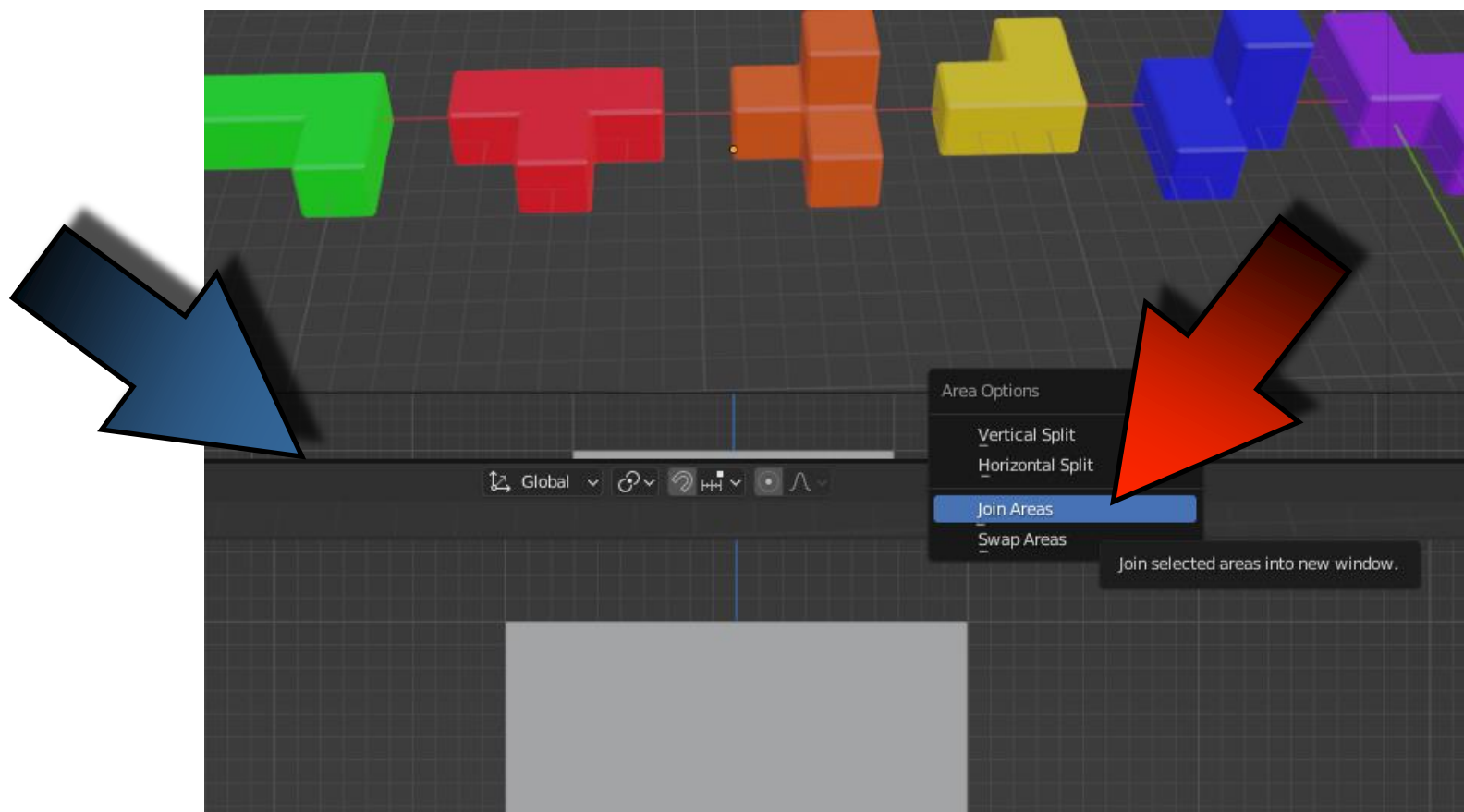


MAGNETIC CUBES

IN THE UPPER
WE CAN SET THE DRAWING VIEW
AND **IN THE BOTTOM THE 3D MODEL**

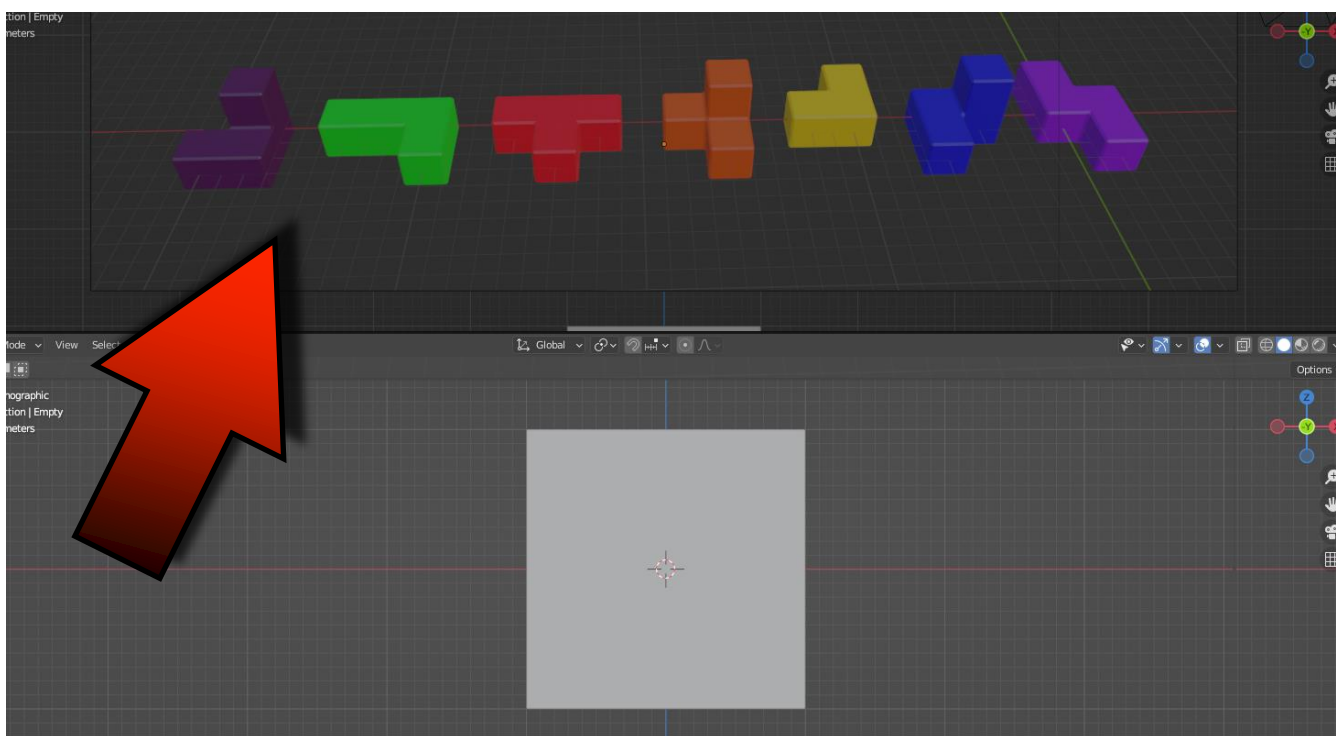


TO CONNECT WINDOWS RIGHT CLICK ON THE **EDGE** AND SELECT **JOIN AREAS**



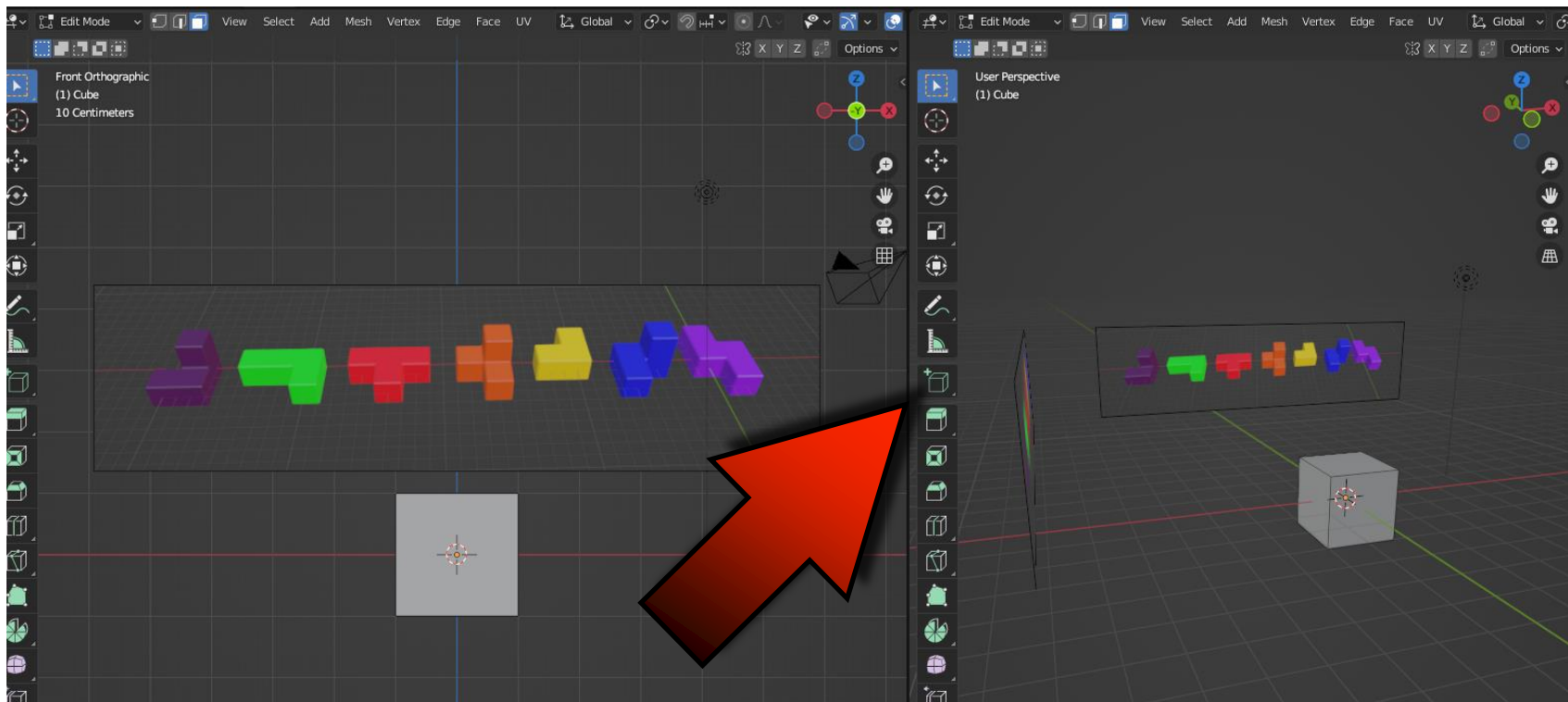
MAGNETIC CUBES

**THEN MOUSE OVER
THE WINDOW YOU WANT TO CLOSE
AND LEFT CLICK**



MAGNETIC CUBES

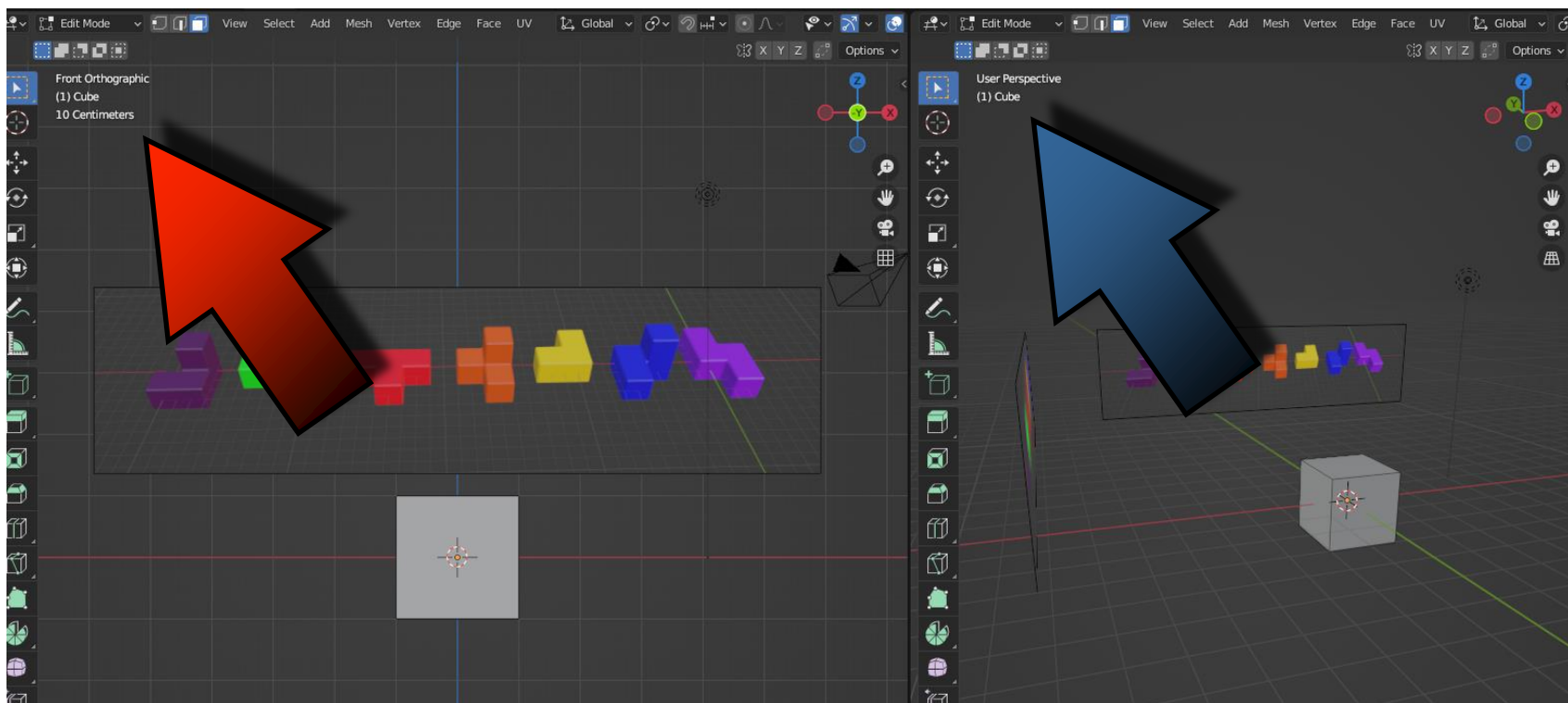
SIMILARLY, WE CAN DIVIDE WINDOWS VERTICALLY



MAGNETIC CUBES

POWER OF AR AND VR

SET TWO VIEWS FRONT ORTHOGRAPHIC AND USER PERSPECTIVE

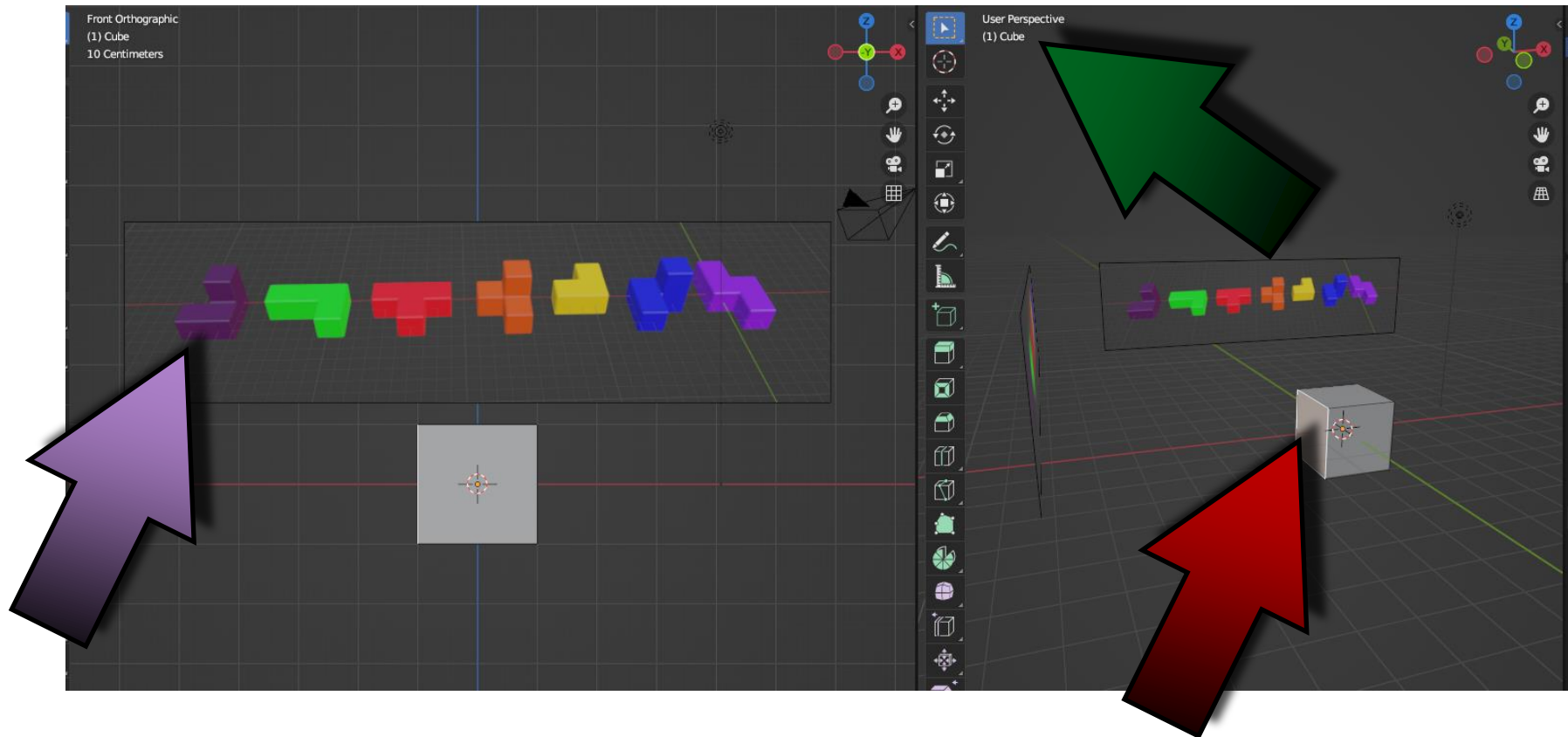


MAGNETIC CUBES

POWER OF AR AND VR

WE WILL DRAW THE FIRST MODEL

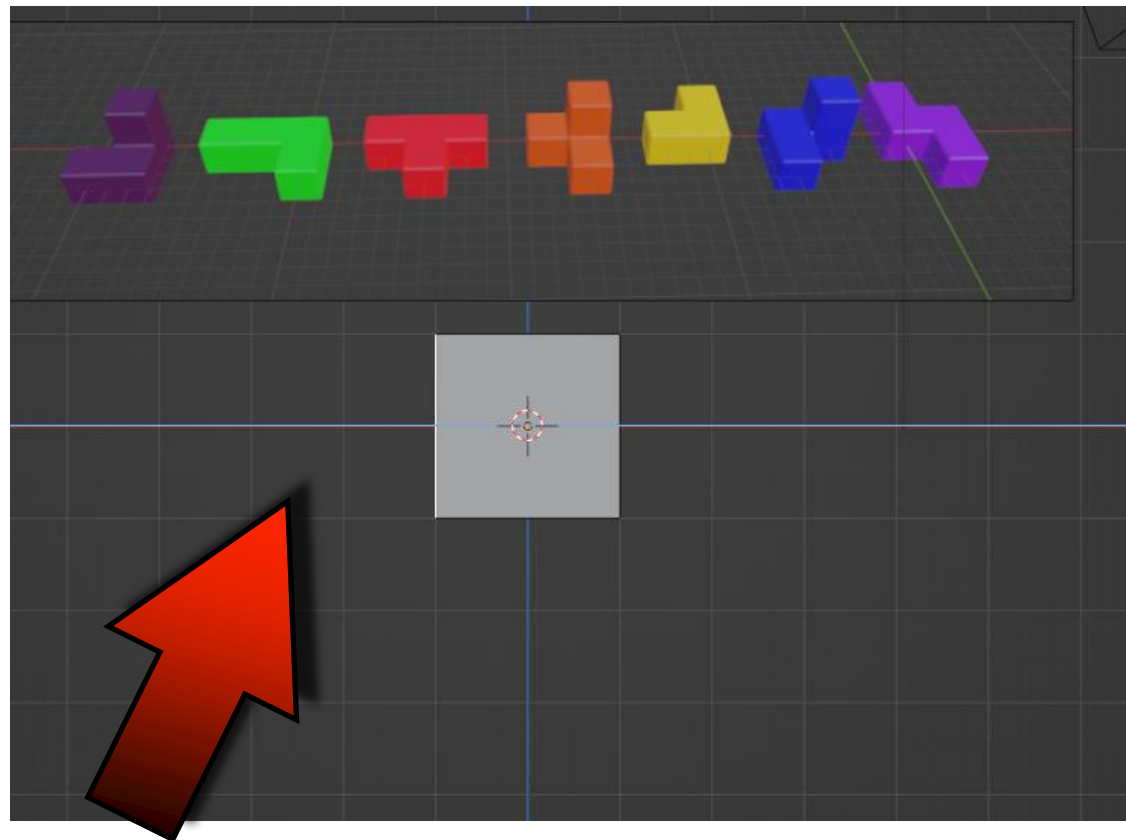
LET'S SELECT THE **WALL** IN THE **PERSPECTIVE** VIEW



MAGNETIC CUBES

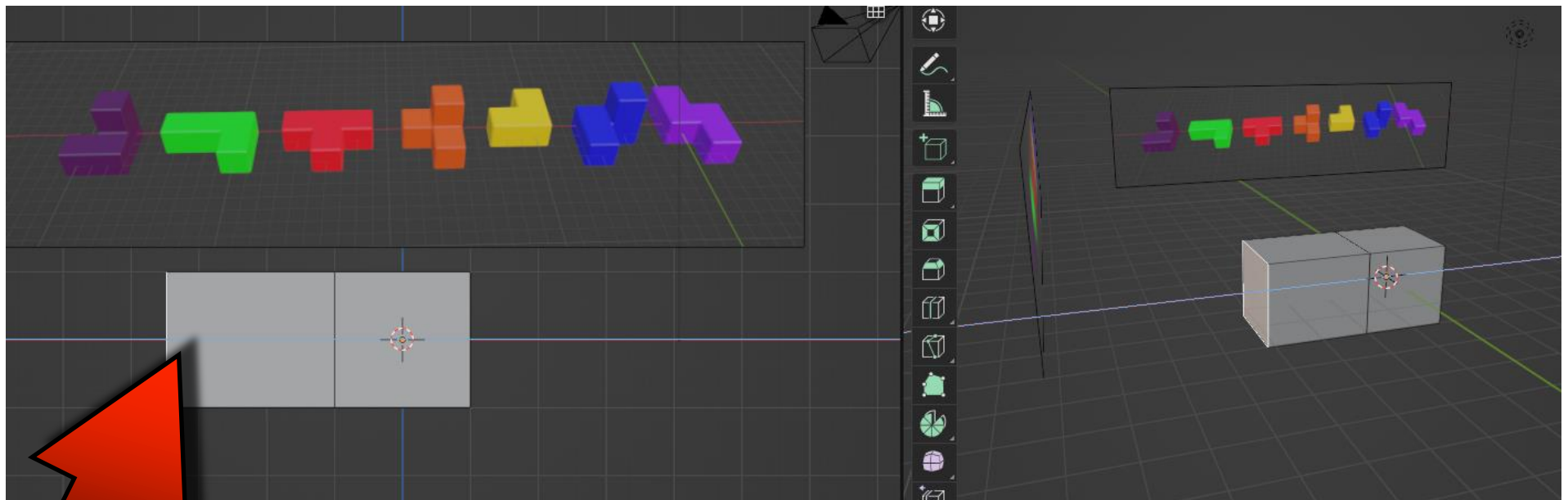
POWER OF AR AND VR

**IN THE ORTOGRAPHIC VIEW,
USING THE MOUSE ROLLER,
I SET THE VIEW SO THAT I CAN SEE
ONLY THE LARGE GRID FIELDS**



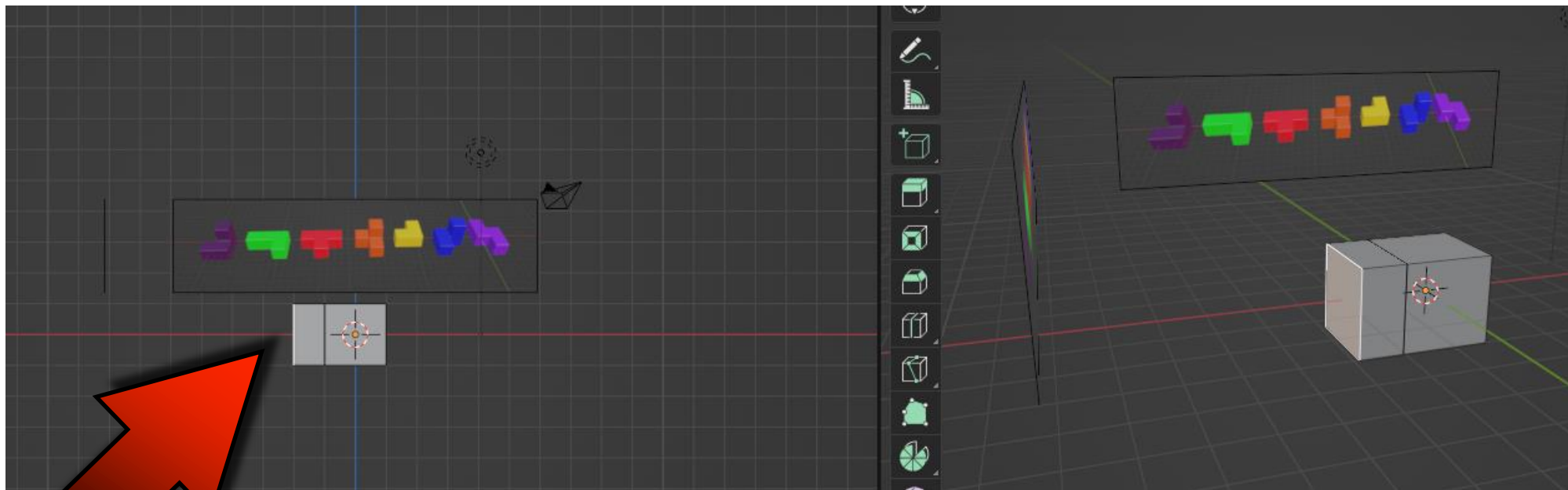
MAGNETIC CUBES

THEN BY USING THE **E** KEY **EXTRUDES** IN THE X AXIS



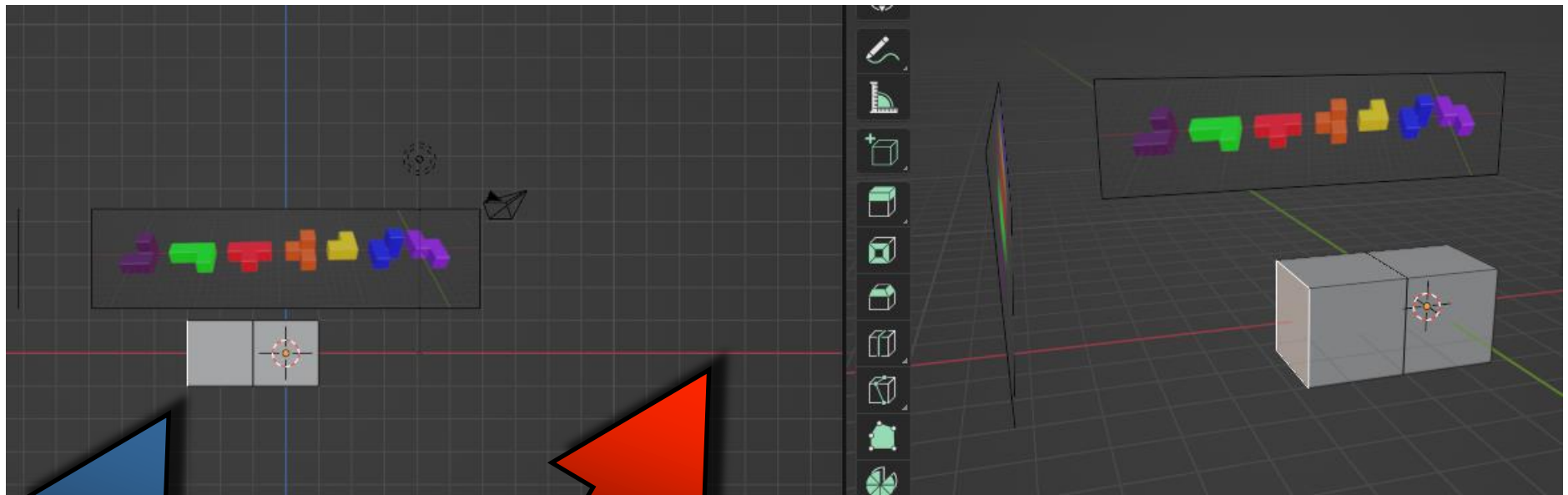
MAGNETIC CUBES

HOLDING THE **CTRL** KEY JUMPS BY THE **VISIBLE GRID FRAME**



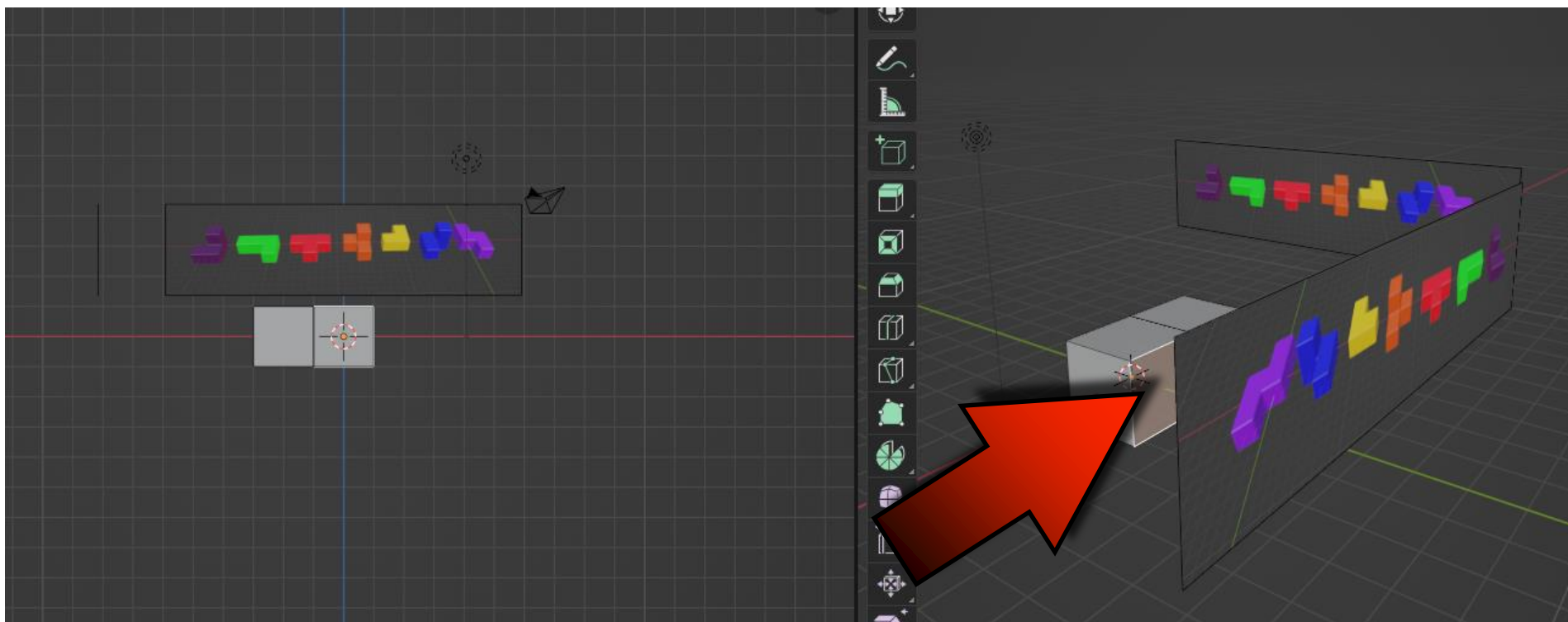
MAGNETIC CUBES

I MOVED THE WALL TWO FRAMES ON THE X AXIS



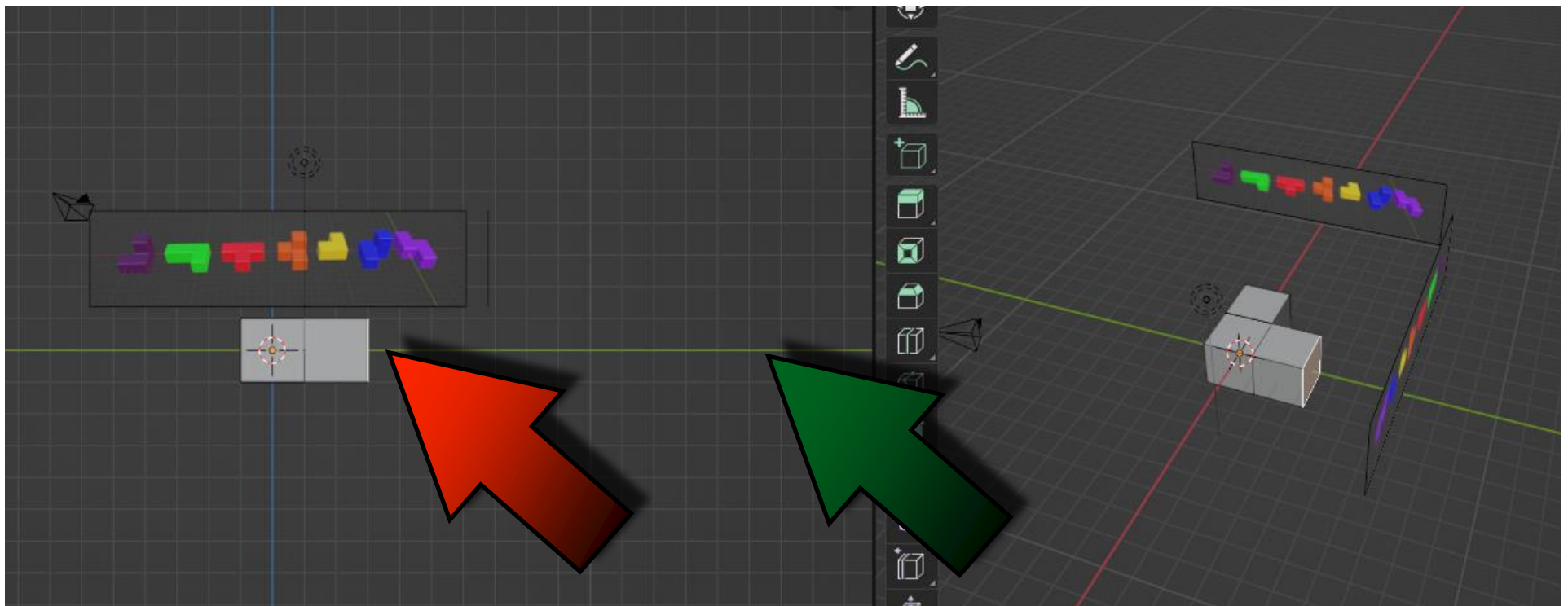
MAGNETIC CUBES

THEN I MARK THE WALL IN THE PERSPECTIVE VIEW



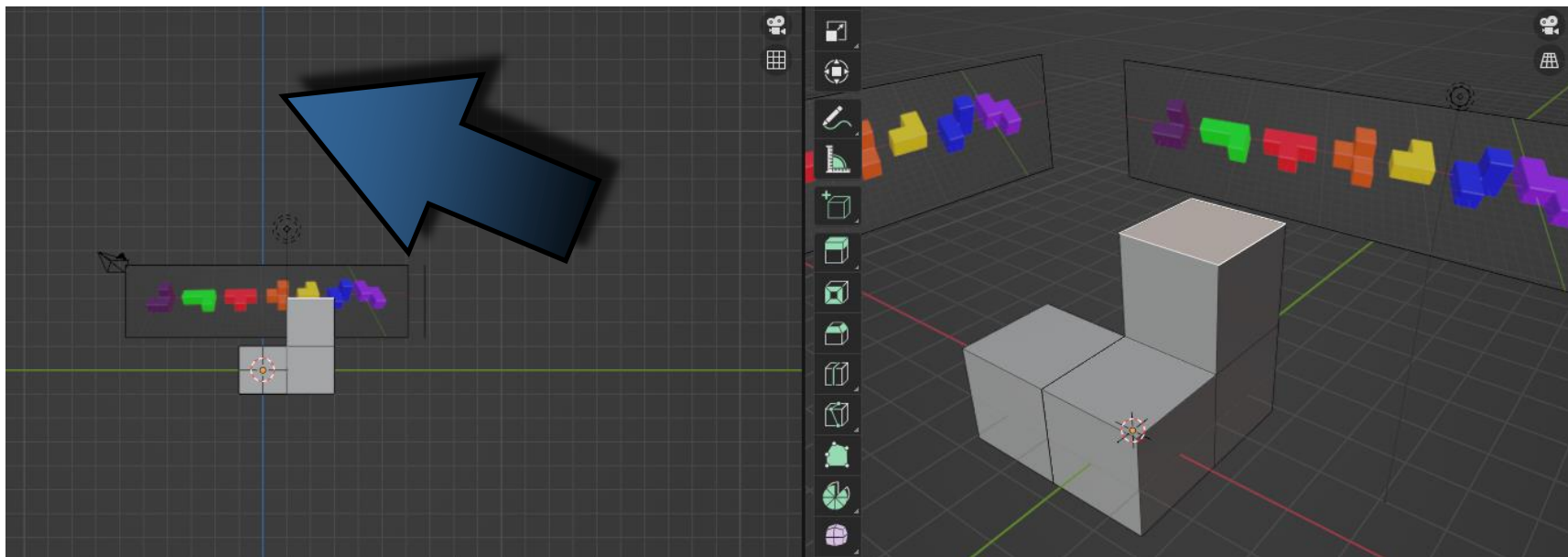
MAGNETIC CUBES

IN ORTOGRAPHIC VIEW EXTRUDES TWO GRID SCALE ON THE Y AXIS



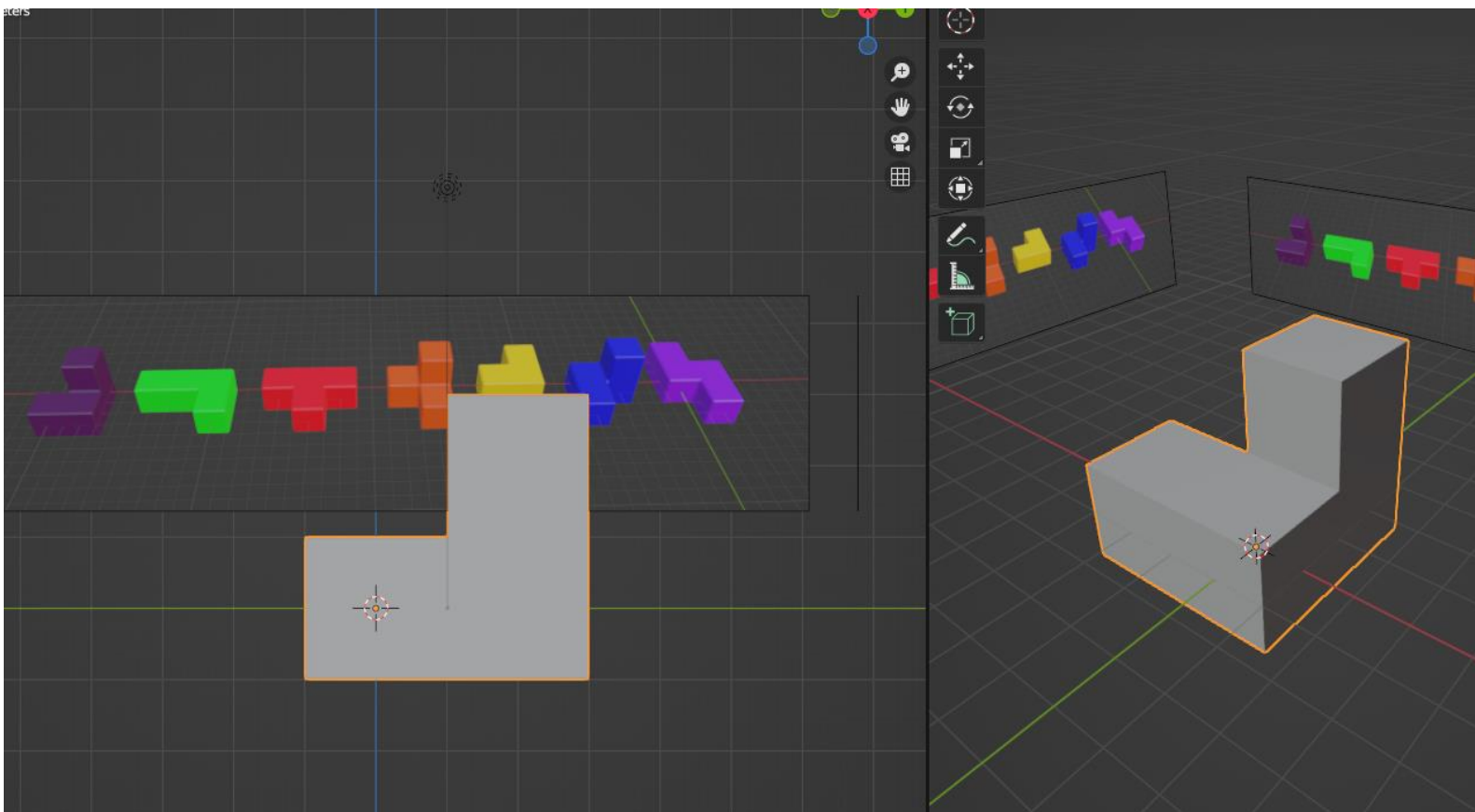
MAGNETIC CUBES

**PROCEEDING SIMILARLY,
EXTRUDES THE APPROPRIATE
WALL ON THE Z AXIS**



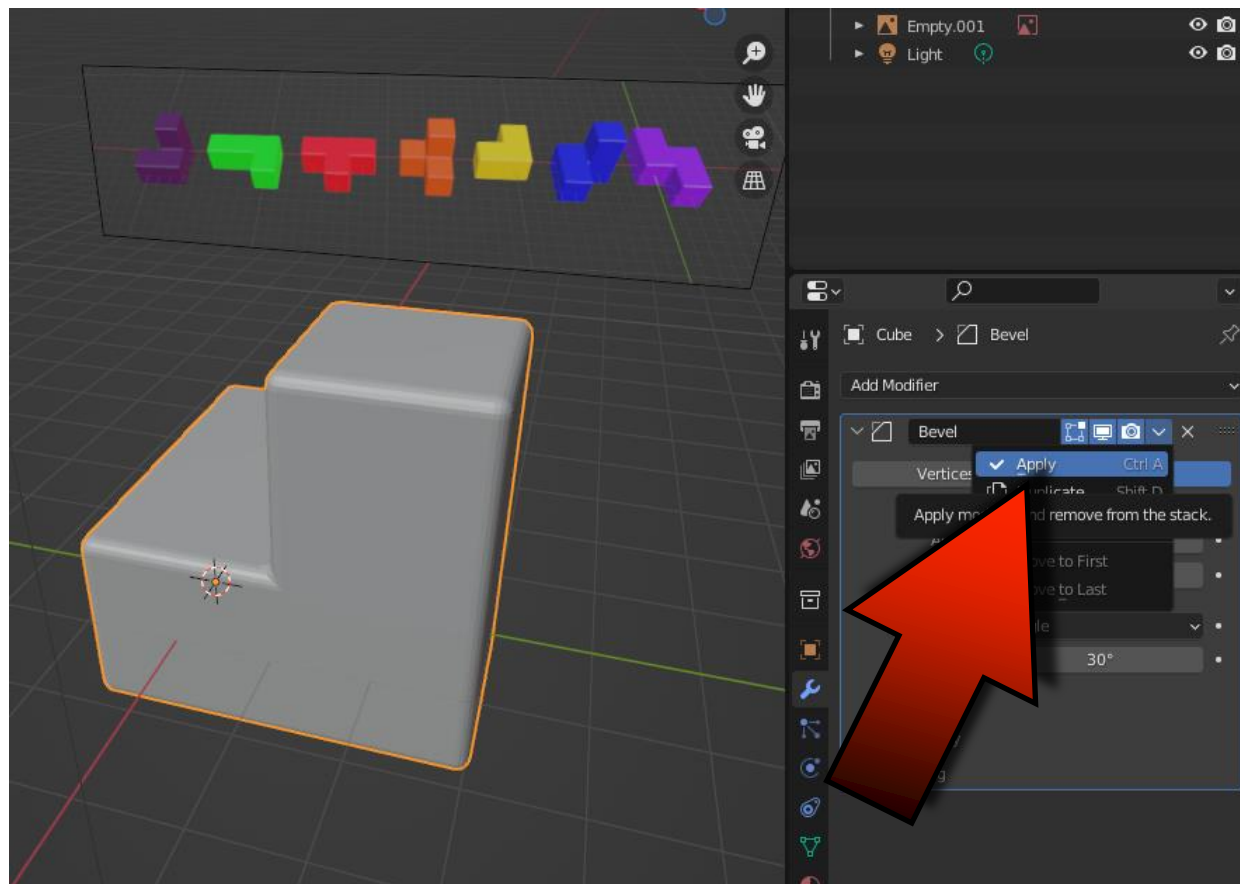
MAGNETIC CUBES

USE TAB KEY TO EXIT EDIT MODE



MAGNETIC CUBES

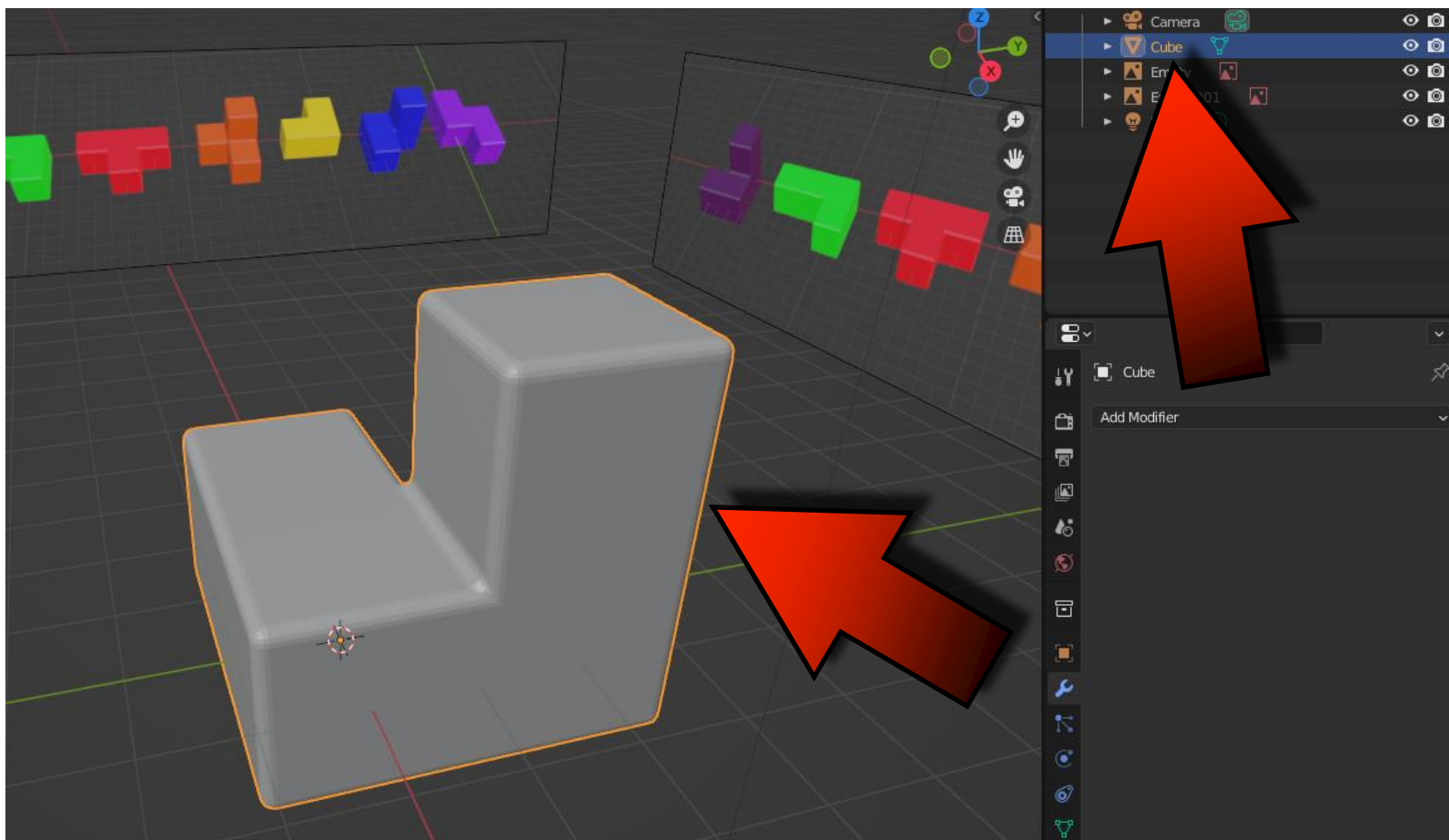
**IF WE USED THE BEVEL MODIFIER
AT THE BEGINNING,
WE SHOULD NOW **APPLY** IT**



MAGNETIC CUBES

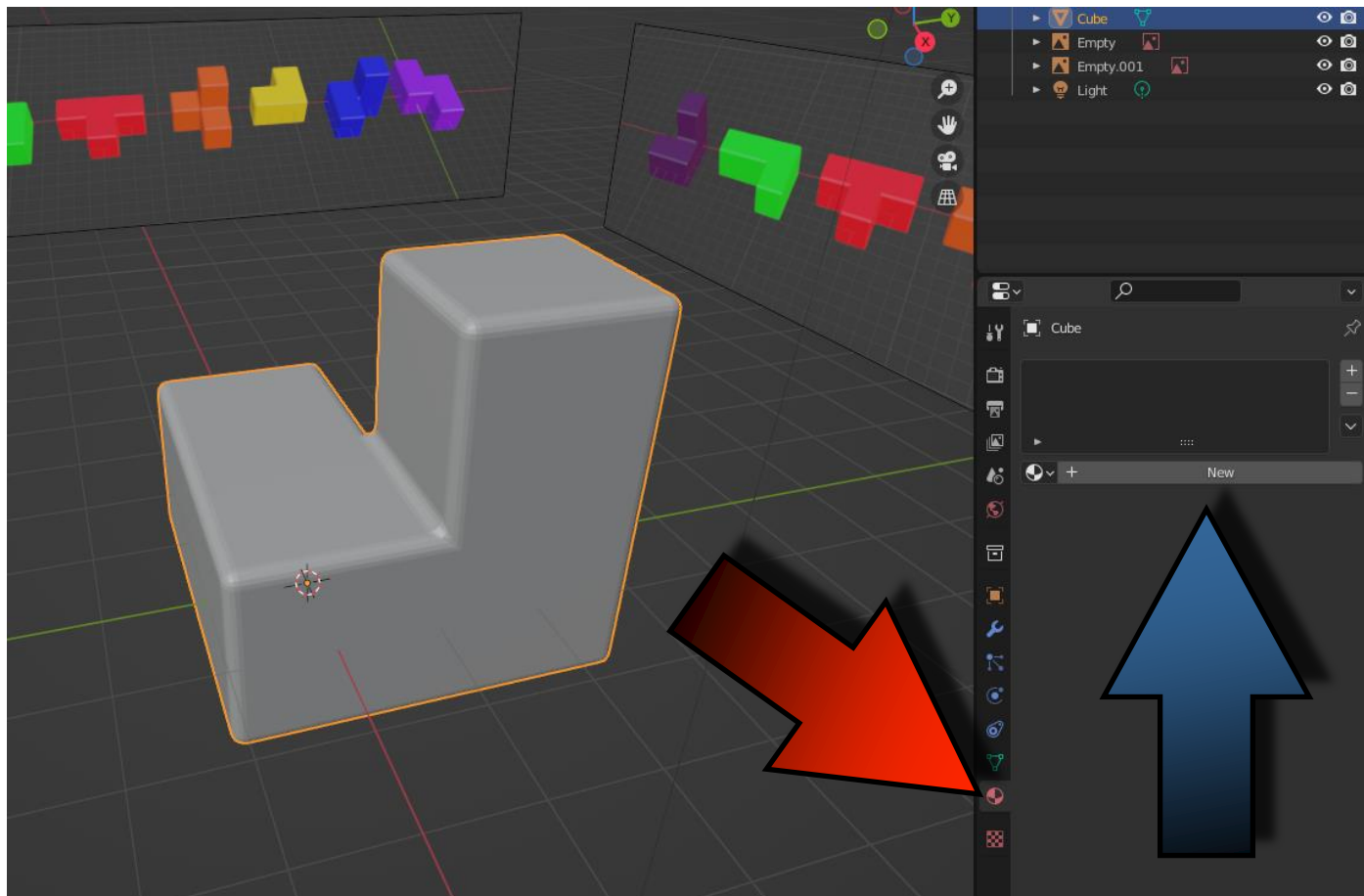
MARK

3D MODEL CREATED



MAGNETIC CUBES

CLICK ON THE **MATERIAL** TAB AND THEN ON **NEW**



MAGNETIC CUBES

POWER OF AR AND VR

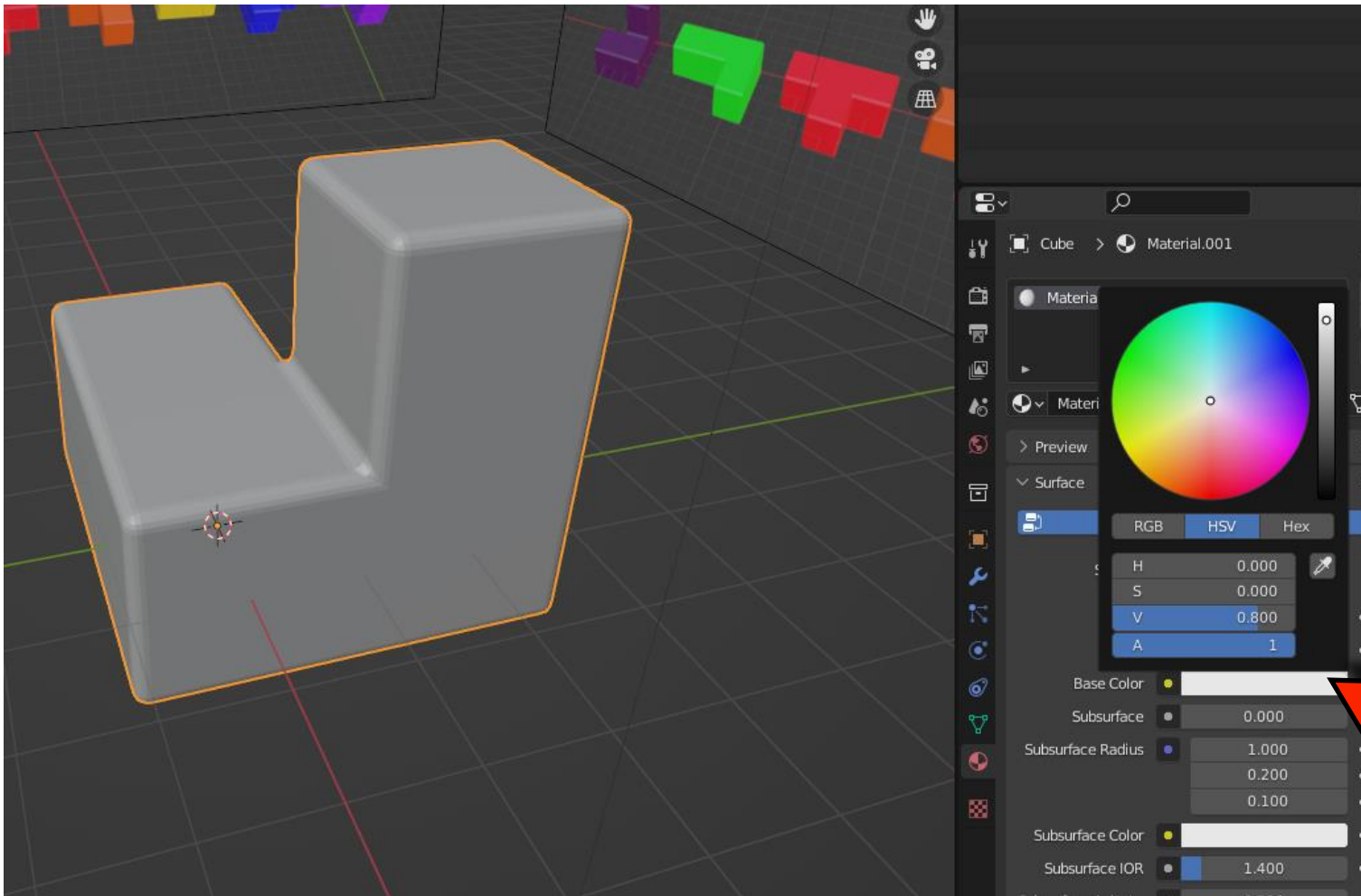
USING THE Z KEY SELECT THE MATERIAL PREVIEW VIEW



MAGNETIC CUBES

POWER OF AR AND VR

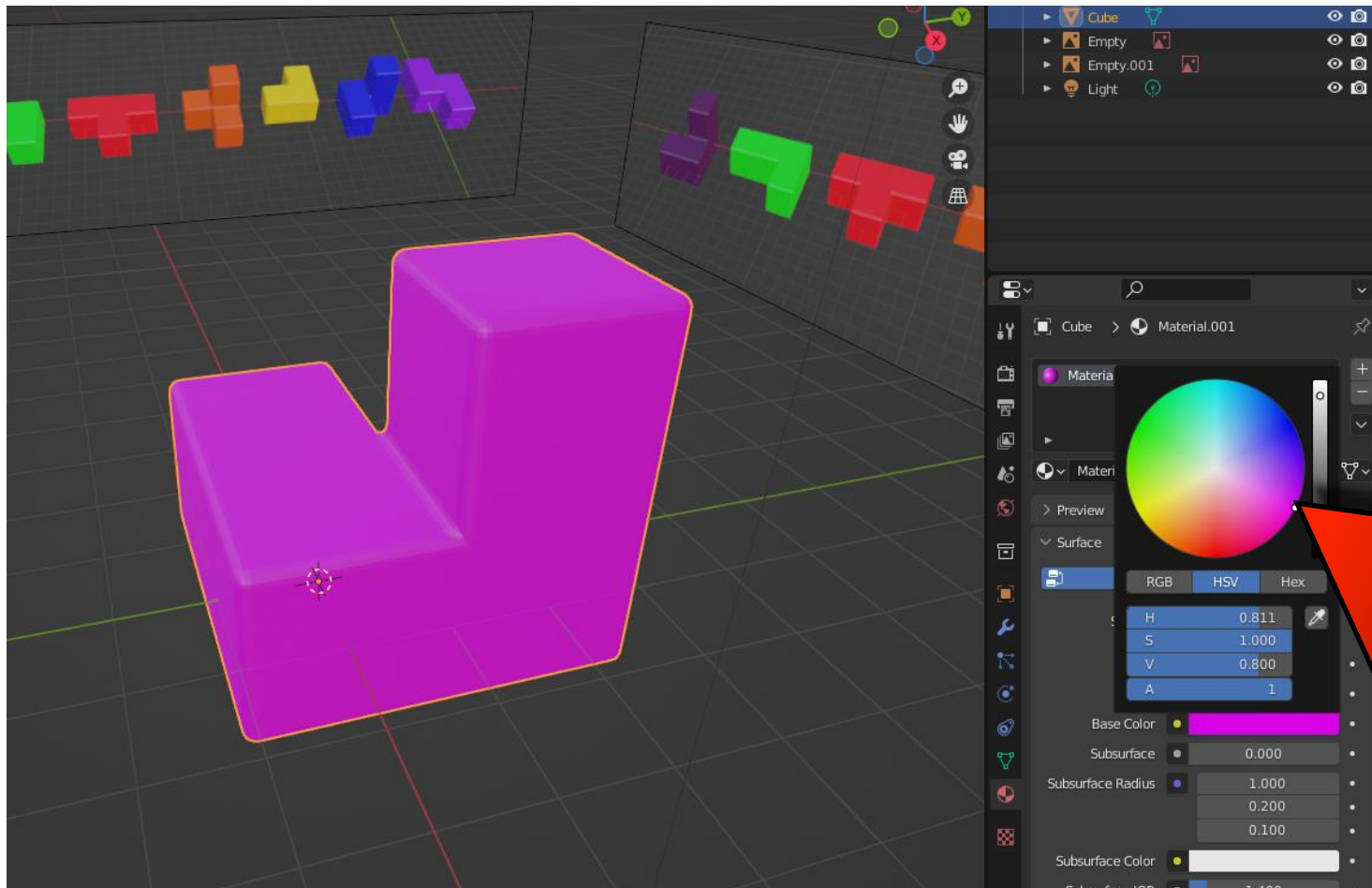
CLICK IN THE BOX BASE COLOR



MAGNETIC CUBES

POWER OF AR AND VR

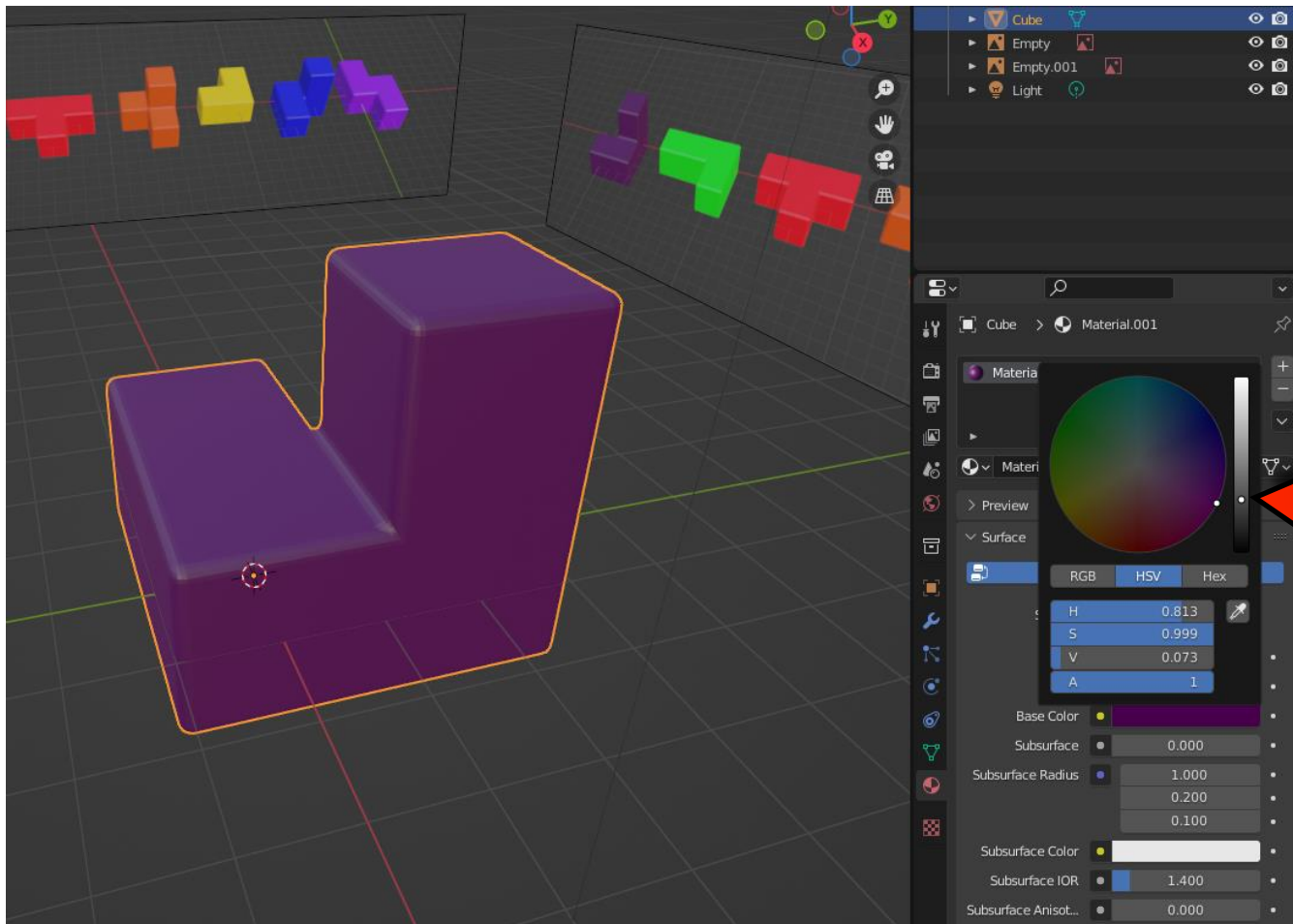
CHANGE COLOR IN ROUND FIELD



MAGNETIC CUBES

POWER OF AR AND VR

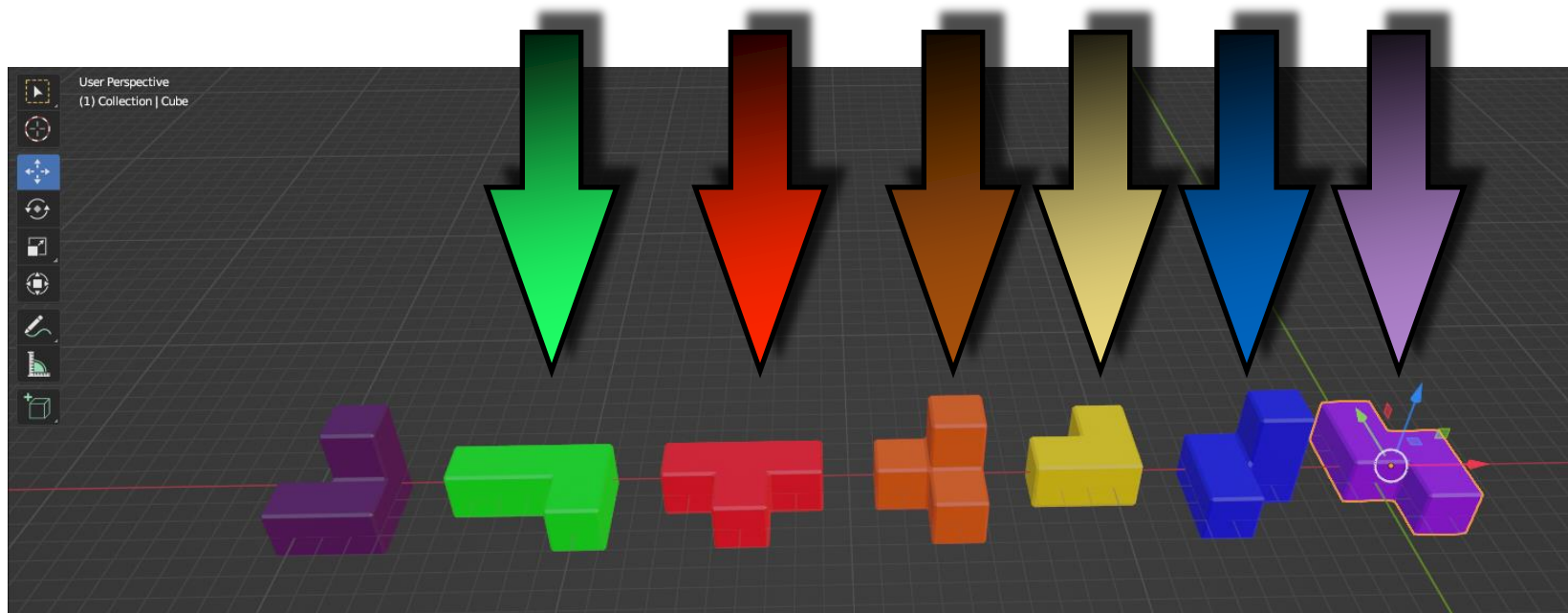
CHANGE BRIGHTNESS ON THE **SLIDE**



MAGNETIC CUBES

BASED ON THE PRESENTED EXAMPLE

DRAW THE REMAINING FIVE MODELS YOURSELF



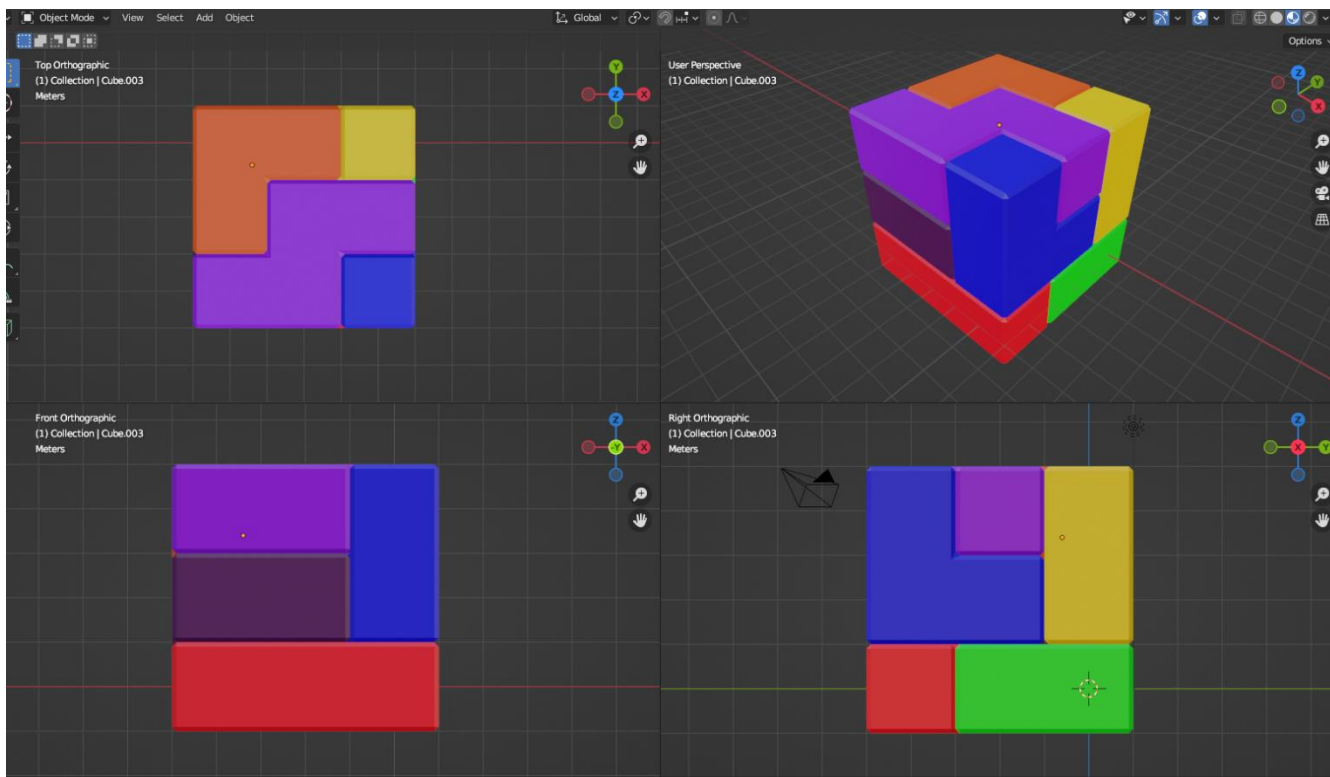
MAGNETIC CUBES

SAVE THIS FILE

IN THE FUTURE WE WILL USE IT WHEN CREATING

3D ANIMATIONS

THEN USE TRANSFORMATIONS SET THE CUBES AS IN THE DRAWING



POWER OF AR AND VR

**THANK YOU FOR
YOUR ATTENTION**



**Co-funded by
the European Union**



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JACEK KAWAŁEK