ZOETROPE



Co-funded by the European Union



2024-1-PL01-KA220-VET-000243150

JACEK KAWAŁEK





TIME FOR A LITTLE MORE DIFFICULT TASK

WE WILL MAKE A **PROTOTYPE MODEL SHOWING HOW ANIMATION IS CREATED** ZOETROP







IF YOU WANTBY USING THE PRESENTED METHOD AND 3D PRINTER YOU CAN BUILD YOUR OWN PROTOPTY











LOG IN TO MIXAMO YOU CAN CREATE A FREE ACCOUNT









CLICK ON UPLOAD CHARACTER









DRAG HERE YOUR PREVIOUSLY DRAWNIN BLENDER PROGRAM YOUR ROBOT

PA1	🎯 mixamo		JACEK -
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		UPLOAD A CHARACTER	X DOWNLOAD
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		Hi there!	AD CHARACTER
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	Body	FBX OBJ Z/P	
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CLICIK ON NEXT







ARRANGEMENT OF ELEMENTS ACCORDING TO PATTERN









CLICK ON NEXT







YOU HAVE TO WAIT A MOMENT









WHEN THERE IS AN ERROR IN THE MODELA CORRESPONDING MESSAGE WILL BE DISPLAYED







OPEN ROBOT IN BLENDER







TURN ON FACE ORIENTATION









ONE ELEMENT HAS AN INVERTED WALL







ENTER EDIT MODE AND USE CTRL+L MEANS AN INCORRECTLY DRAWN ELEMENT







WITH SHIF+N OR SHIFT+CTRL+N REVERSE WALLS







EXPORT CORRECT MODEL TO FBX

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DO NOT LEAVE ANY SPACE BETWEEN THE ELEMENTS









THIS MODEL MIXAMO SYSTEM WILL ACCEPT CLICK ON NEXT









MARK DANCE







CHOOSE RUMBA DANCING AND CLICK ON DOWNLOAD







CHOOSE FBX FOR UNITY AND CLICK ON DOWNLOAD

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IMPORT NEW MODEL TO BLENDER

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BY PRESSING SPACE YOU WILL SEE ANIMATION WITH KEYFRAMES









SCALE ANIMATIONS TO 60 FRAME WITH THE S KEY

















BY PRESSING THE N KEY WE EXTEND THE WINDOW ON THE RIGHT SIDE









INSTALL ADD-ON 3D PRINT TOOLBOX

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WITH IT WE WILL QUICKLY CREATE MANY FILES THAT CAN ALSO BE USED FOR 3D PRINTING









CURRENTLY WE HAVE THIS SITUATION WITH OUR FILES









CHANGE MODEL NAME TO R_01







THIS IS IMPORTANT THE MODEL MUST BE SELECTED









CLICK ON EKSPORT









A FILE WITH ADDED MODEL NAME WILL BE CREATED R_01







GO TO FRAME 3









CHANGE MODEL NAME TO R 03



ROBOT1.blend

ROBOT1.fbx










CLICK ON **EKSPORT** A FILE WITH ADDED MODEL NAME R_03 WILL BE CREATED







POWER OF AR AND VR



PROCEED LIKE THIS UNTIL FRAME 59 SKIPING EVERY TWO FRAMES









OPEN A NEW FILE AND IMPORT ALL STL FILES

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YOU WILL SEE THIS VIEW ALL MODELS WILL BE IN ONE PLACE









IN TOP ORTOGRAPHIC VIEW INSERT CIRCLE



ZOETROPE





CHANGE TO 30 VERTEX









SCALE CIRCLE AS IN THE DRAWING









GO TO EDIT MODE AND SELECT ONE VERTEX







POWER OF AR AND VR



PRESS SHIFT+S AND SELECT CURSOR TO SELECTED

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IN OBJECT MODE SELECT ALL IMPORTED MODELS









CLICK SHIFT+S AND SELECT SELECTION TO CURSOR









ALL MODELS WILL JUMP TO 3D CURSOR

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THIS IS HOW YOU CAN DISTRIBUTE SINGLE MODELS TO INDIVIDUAL VERTEXES HOWEVER, THIS IS A QUITE LABOR-INTENSIVE METHOD IN WHICH IT IS EASY TO MAKE A MISTAKE







IF YOU WANT OTHERS TO SEE WHAT KEYS YOU ARE PRESSING, YOU CAN INSTALL THE APPROPRIATE PLUG-IN



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IT WILL BE IN THE SAME WINDOW AS OUR PREVIOUS ADD-ONS









IN LATER TRAININGS, SOME CLASSES WILL BE **IMPLEMENTED AS TUTORIALS ON YOUTUBE** WHERE WE WILL USE THIS ADDITION







MOVE THE CURSOR TO THE CENTER OF THE COORDINATE SYSTEM









SELECT TRANSFORMATIONS AROUND THE 3D CURSOR







FOR THESE EXERCISES WE USE APPROPRIATE TABLES

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IN OUR CASE WE HAVE 30 FILES SO WE WILL MOVE THE MODELS EVERY 12 DEGREES

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FOR **R_03** PERFORM THE FOLLOWING ROTATION









THEN FOR R_05







POWER OF AR AND VR



IN ORDER NOT TO MAKE A MISTAKE, WE OFTEN USE A SPREADSHEET BY ENTERING A SIMPLE FORMULA









DO THIS UNTIL R_59









THIS IS WHAT THE CORRECTLY SET MODELS WILL LOOK LIKE









IN TOP ORTOGRAPHIC VIEW INSERT CIRCLE CURVE









SCALE AS IN THE DRAWING









PLACE ABOVE MODELS









SET THE CAMERA AS IN THE DRAWING



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SET CORRECT CAMERA VIEW YOU CAN ALSO CHANGE THE PARAMETER FOCAL LENGHT









SELECT CAMERA AND WITH SHIFT KEY THEN SELECT CURVE



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CHOOSE FOLLOW PATH









SEE HOW THE CAMERA MOVES









WE NEED TO SELECT THE CURVE AND FILM PARAMETERS








IF THERE ARE MANY MODELS, THEY SHOULD BE GROUPED SELECT THEM AND PRESS M









WE WILL CREATE A NEW COLLECTION CALLED ROBOT









ALL ROBOT MODELS ARE IN ONE PLACE







POWER OF AR AND VR CHANGE THE NUMBER OF FILM FRAMES TO 30











CHANGE THE NUMBER OF CURVE FRAMES TO 30 AS WELL









RUN ANIMATIONTHE EFFECT IS ALREADY BETTER



ZOETROPE





FOR A BETTER VIEW YOU CAN TURN OFF THE FLOOR AND AXES









EXPERIMENT WITH CURVE SETTINGS







HERE YOU CAN SEE SAMPLE VISUALIZATIONS THAT WE MAKE IN CLASSES, MADE FOR 35 FRAMES

https://www.youtube.com/watch?v=ToDXpC5eqDA



https://www.youtube.com/watch?v=HKvcTBVT700





POWER OF AR AND VR

THANK YOU FOR YOUR ATTENTION



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JACEK KAWAŁEK