



BOSILJKO ĐEREK
PROF. MATEMATIKE I FIZIKE
OŠ SREDIŠĆE, ZAGREB



MIRELA PUŠKARIĆ,
PROF. MATEMATIKE I INFORMATIKE
OŠ ZAPRUĐE, ZAGREB

ZAŠTO 3D MODELIRANJE?



PRIMJENA

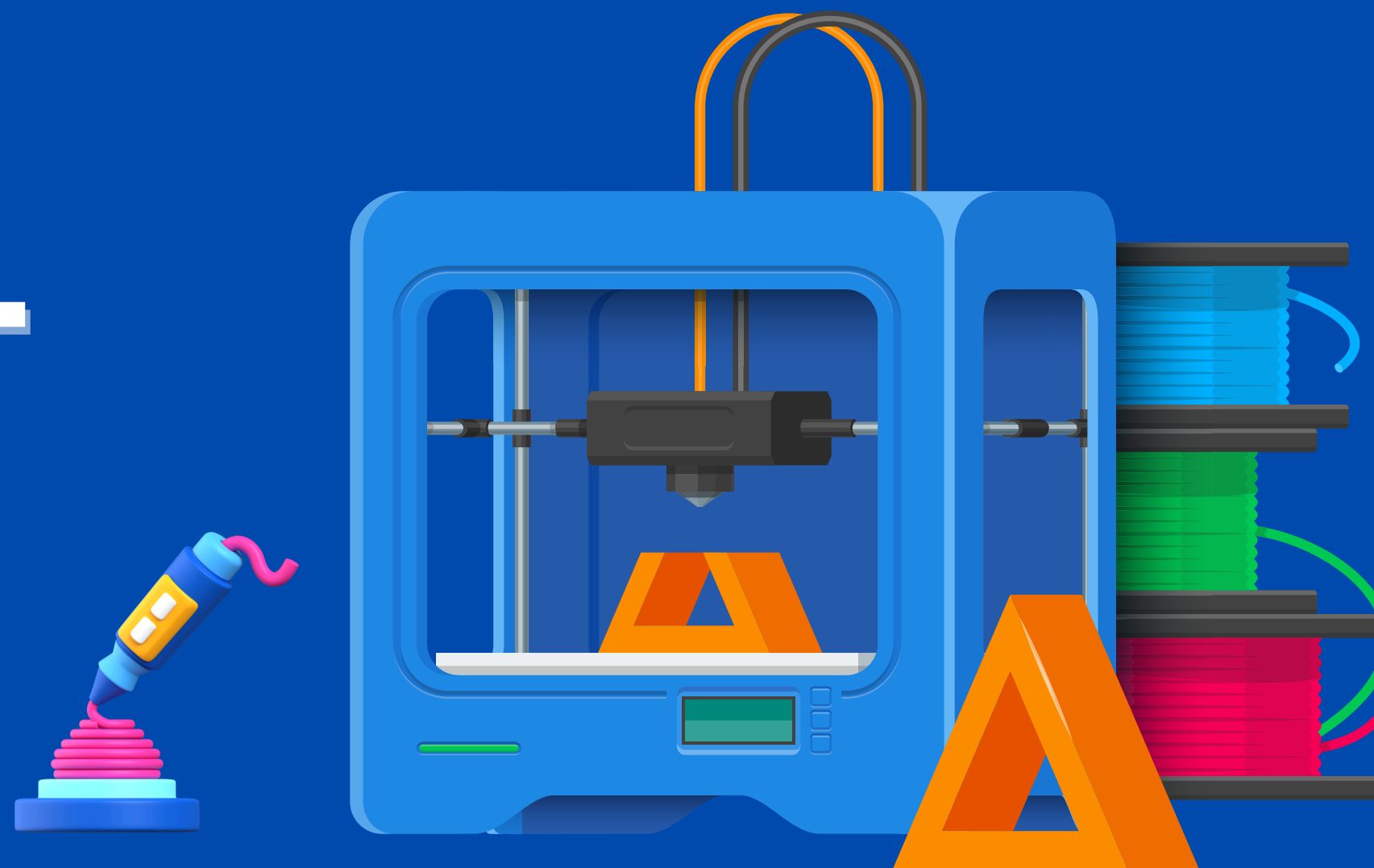
- MEDICINA
- RELJEFNI PRIKAZI ZEMLJINE POVRŠINE
- DEKORACIJE
- MAKETE
- INSTRUMENTI
- DIDAKTIČKA POMAGALA
- ARHITEKTURA
- ARHITEKTURA RAČUNALNIH IGARA
- PODUZETNIŠTVO

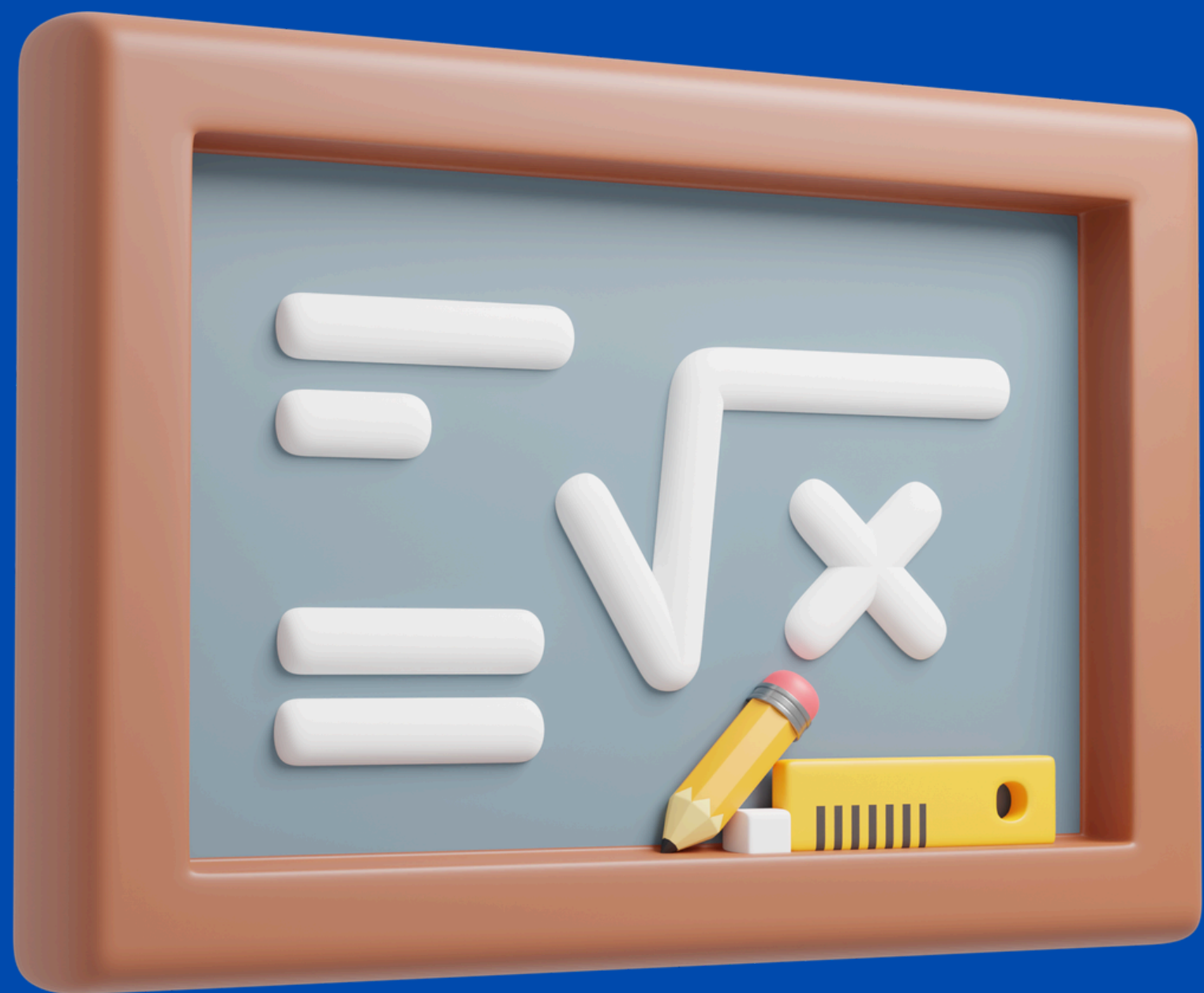


TEHNIČKI PREDUVJETI ZA 3D DIZAJN



- PROGRAMSKI ALATI
- PISAČ
- FILAMENT





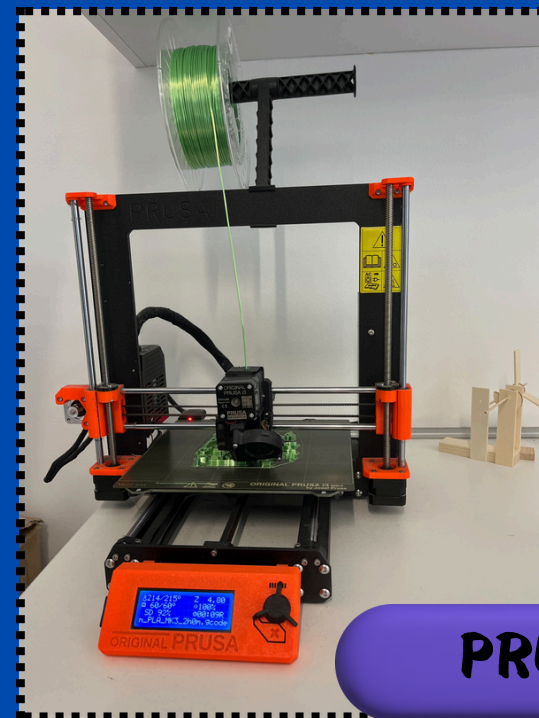
**ZAŠTO
3D MODELIRANJE
U ŠKOLI?**

3D PISAČI U ŠKOLAMA





ENDER 3 S1 PRO



PRUSA



BAMBU LAB





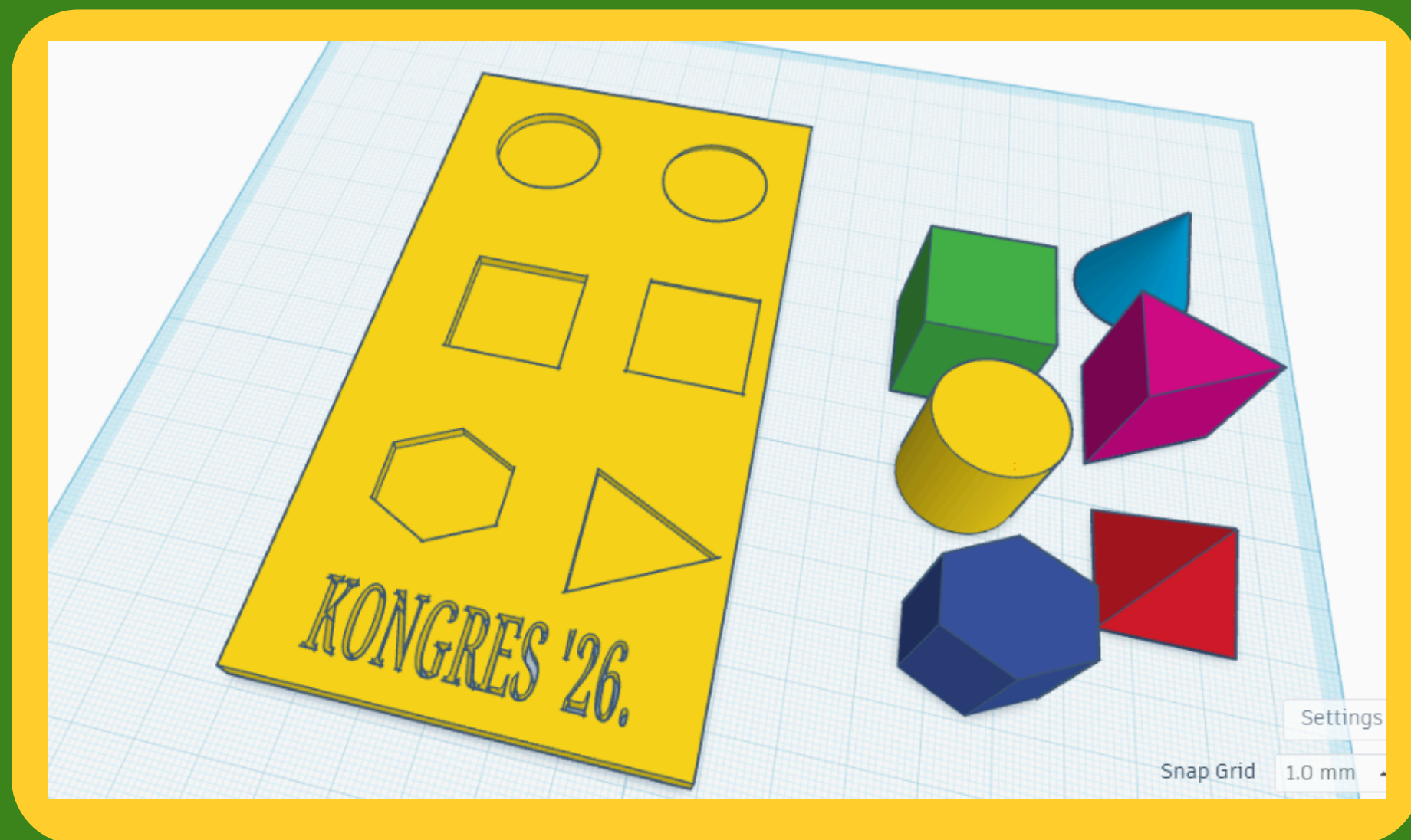
3D DIZAJN TINKERCAD



RADIONIČKI SADRŽAJ

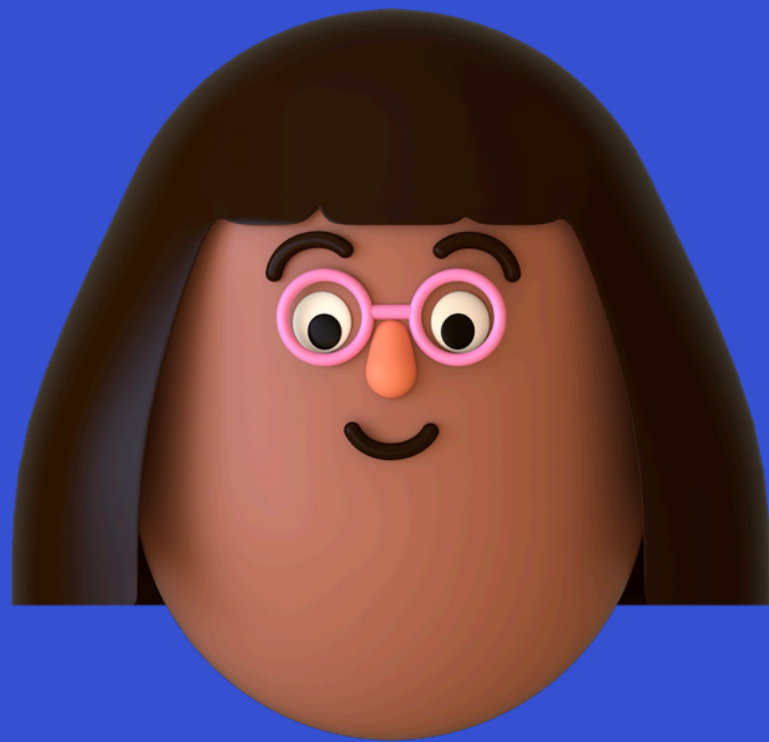


AKTIVNOST 1



MODELIRANJE UČILA

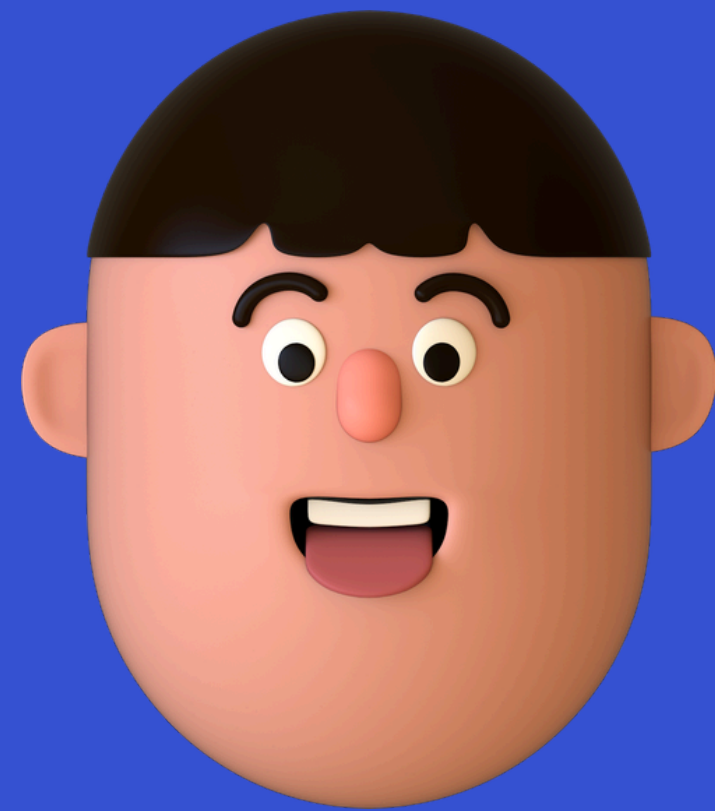
TINKERCAD RAZRED



sudionik1



sudionik2



sudionik3

1

poveznica:

tinkercad.com/joinclass

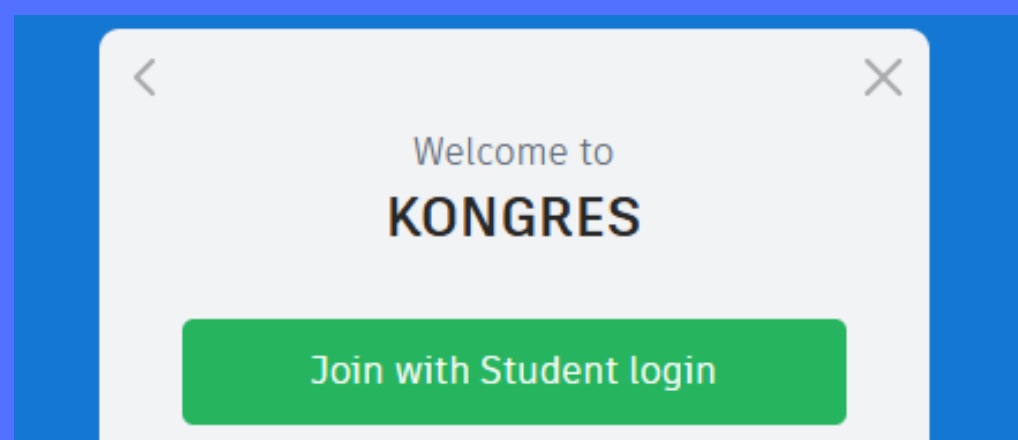
2

students, join a Class: upišite kod

3

KOD: LAPRXN56H

4



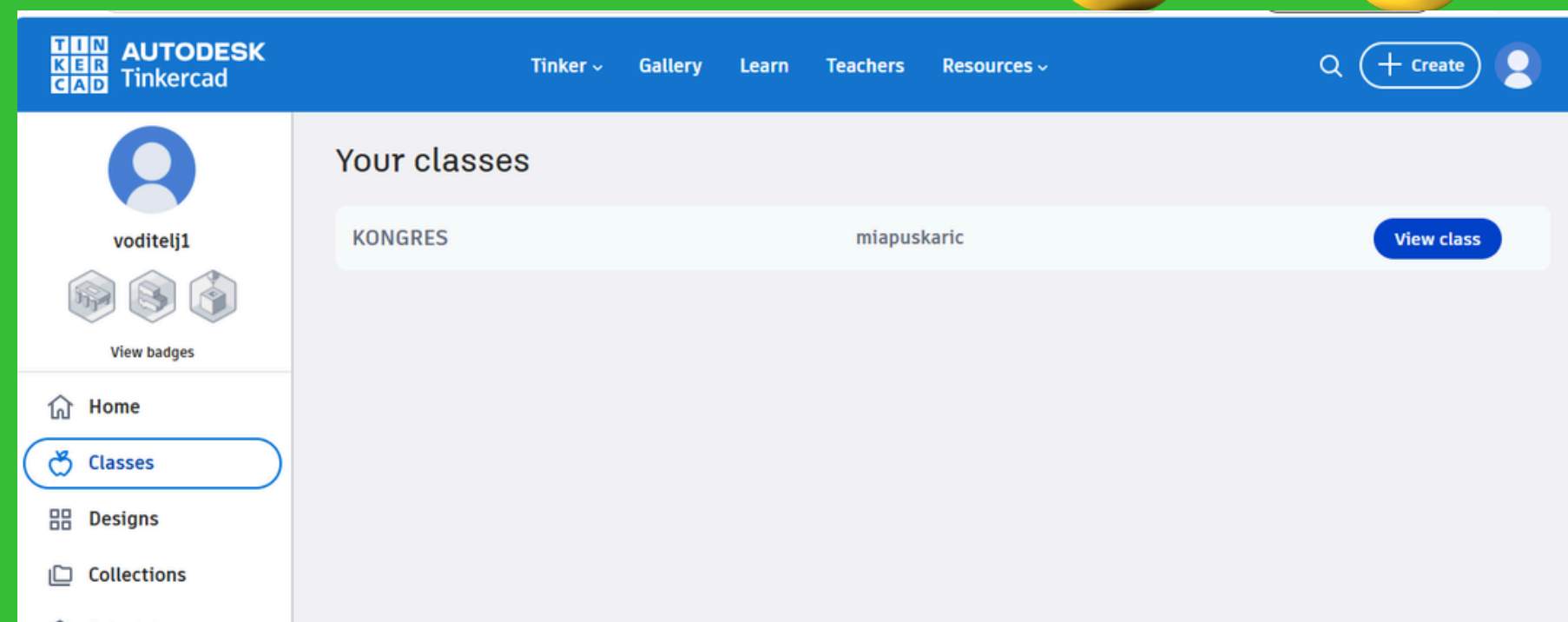
5

nickname: sudionik1, sudionik2,

M

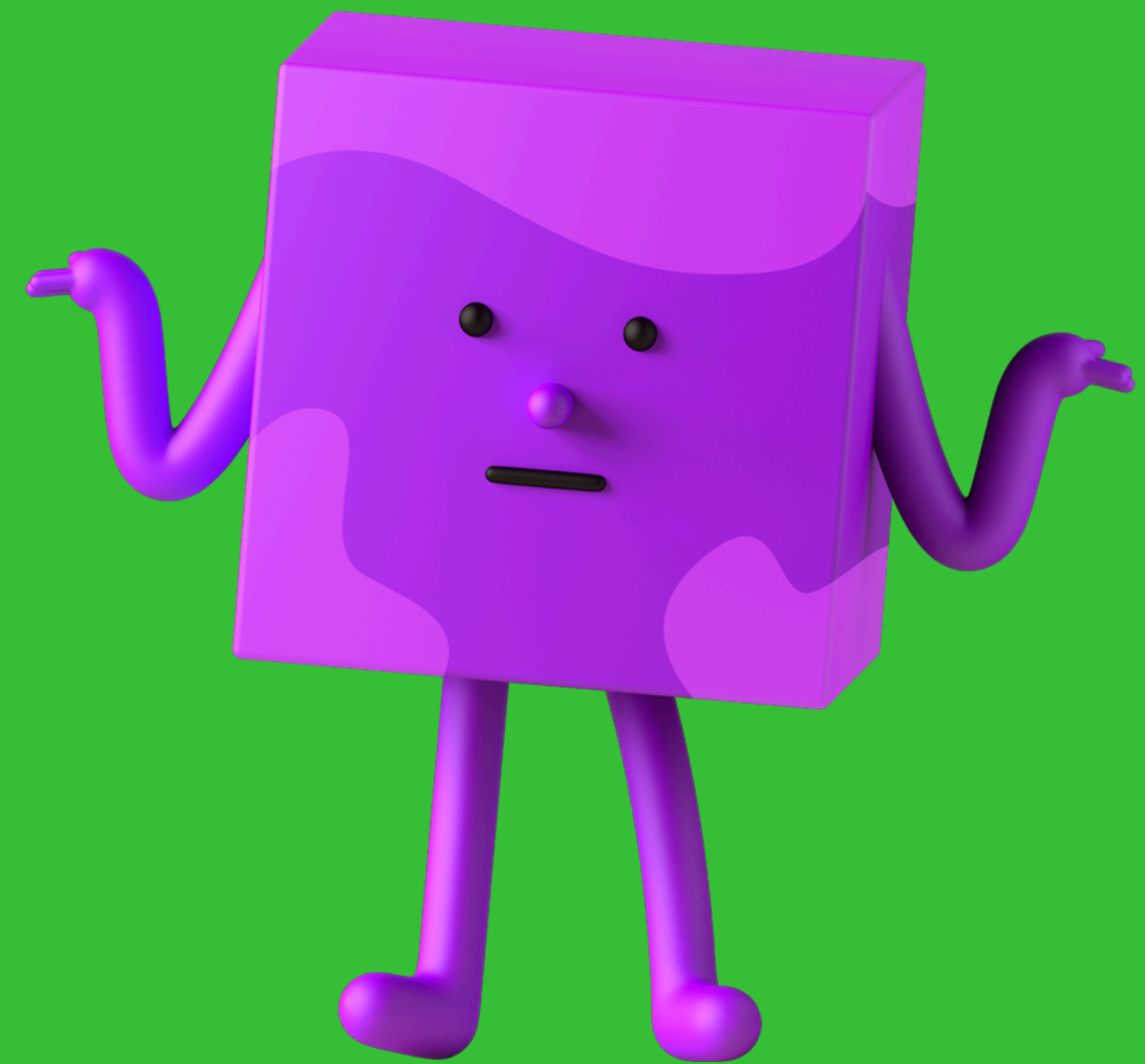
KORACI

1. CLASSES
2. ACTIVITY - UČILO - TIJELA
3. CREATE NEW DESIGN
4. 3D DESIGN



SUČELJE TINKERCAD

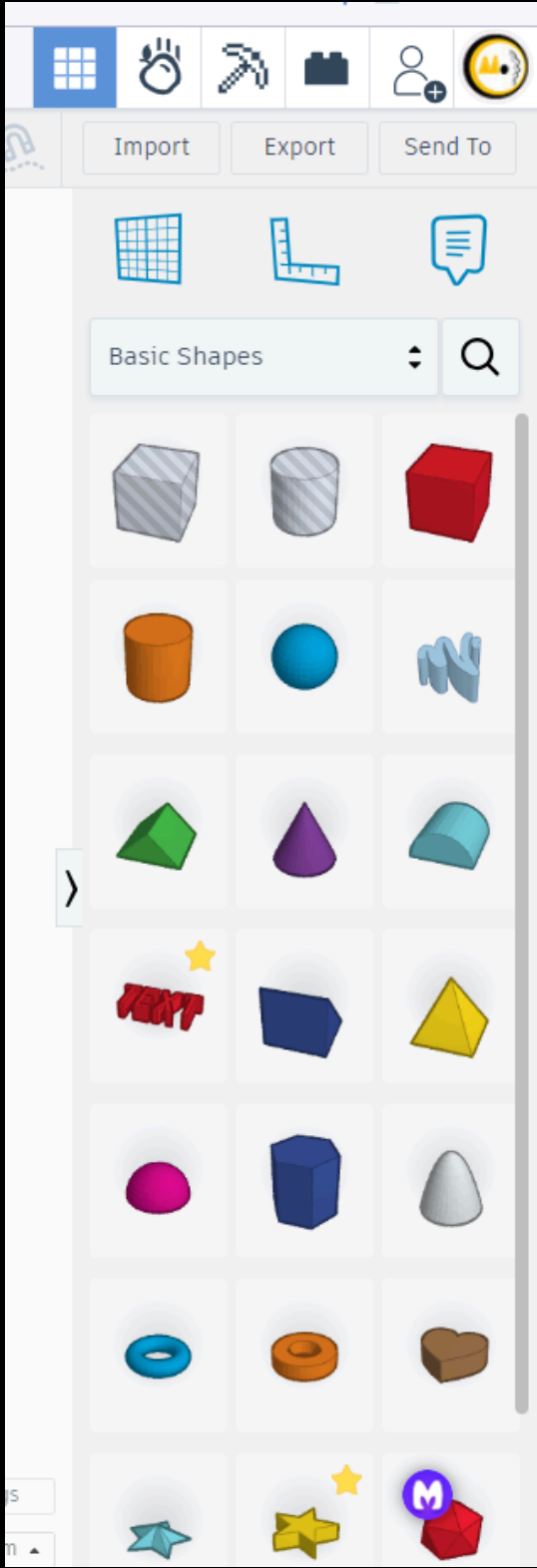
- NAZIV: kongres 26_IME
- RADNA POVRŠINA - WORKPLANE
- MIŠ - UPRAVLJAČKE TIPKE
- POGLED, HVATALJKE, DIMENZIJE
- ALATNA TRAKA - FUNKCIJE
- KOLEKCIJE



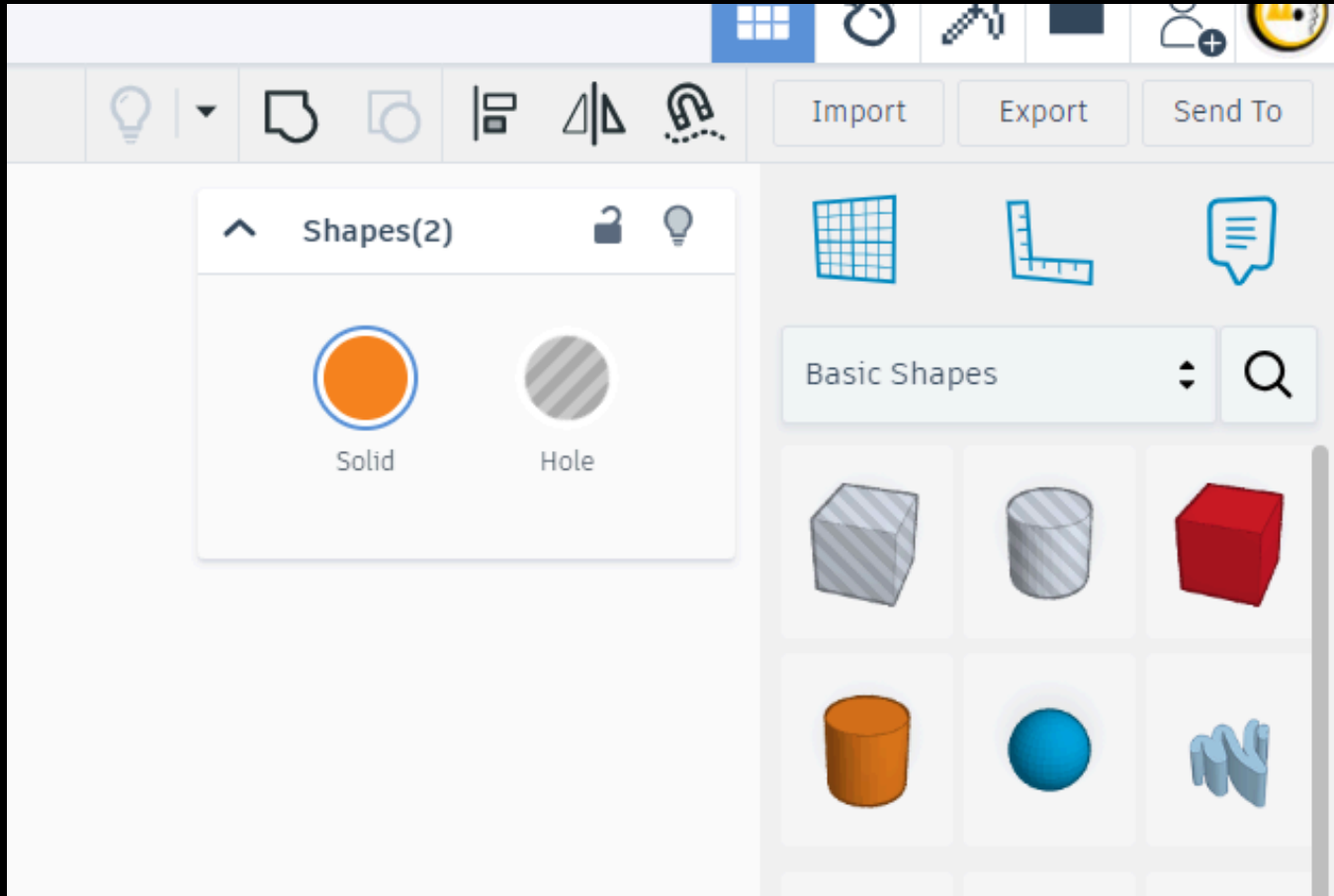
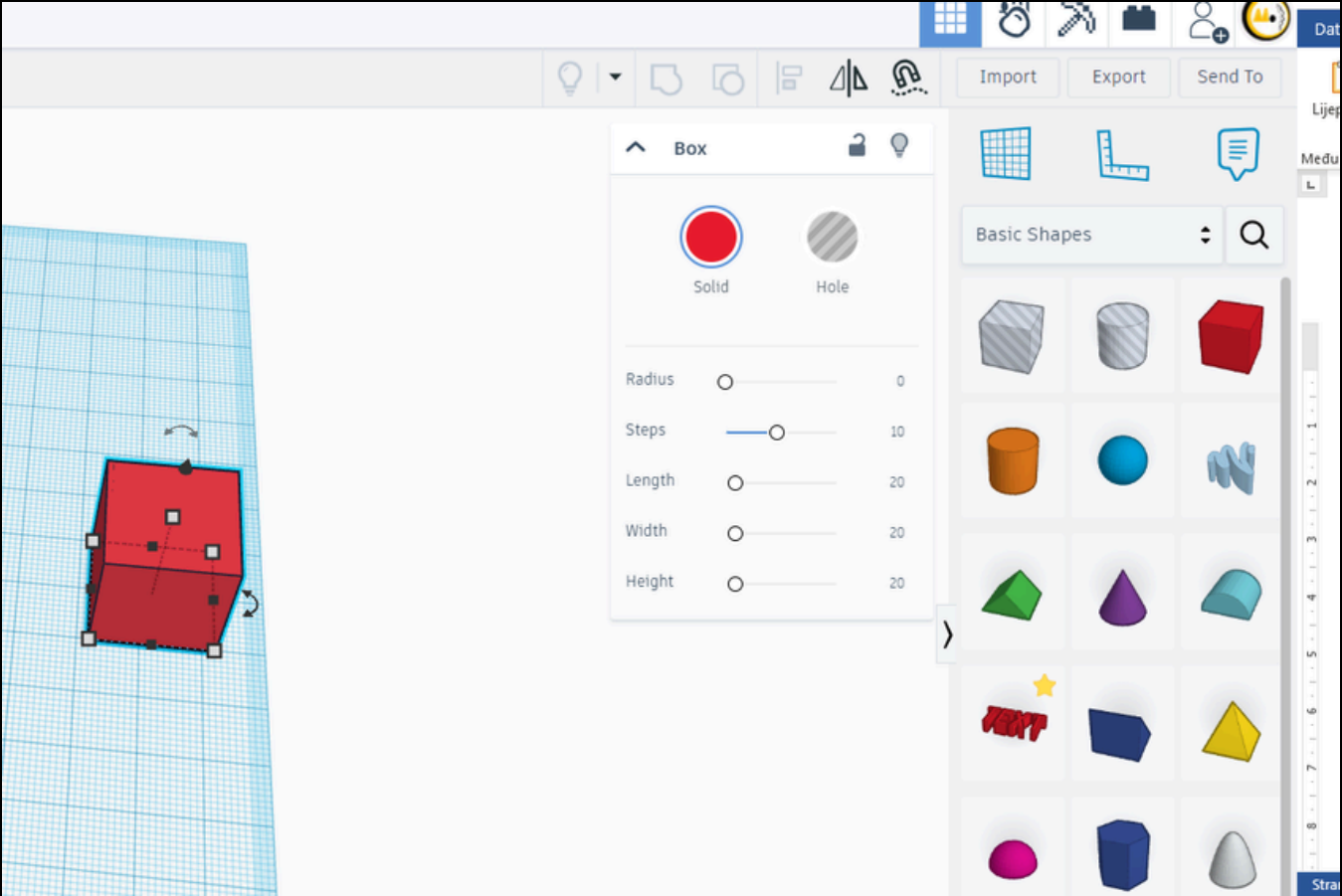
PPERSPEKTIVA



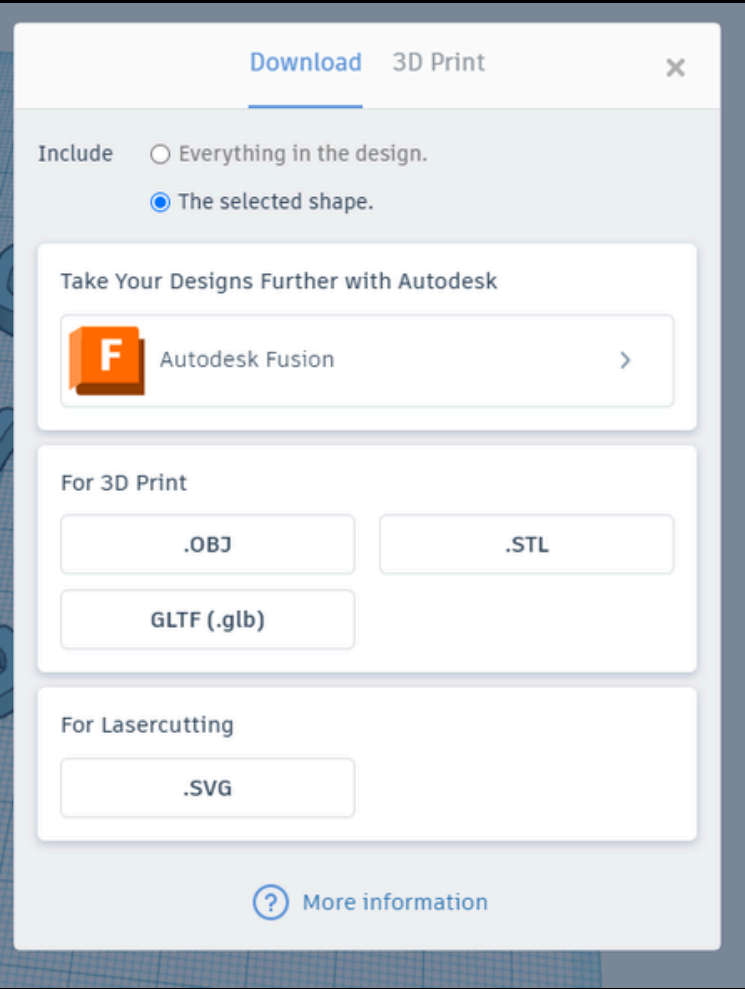
KOLEKCIJE



SVOJSTVA OBJEKTA



IZVOZ DATOTEKE





Izrada pločice/postolja

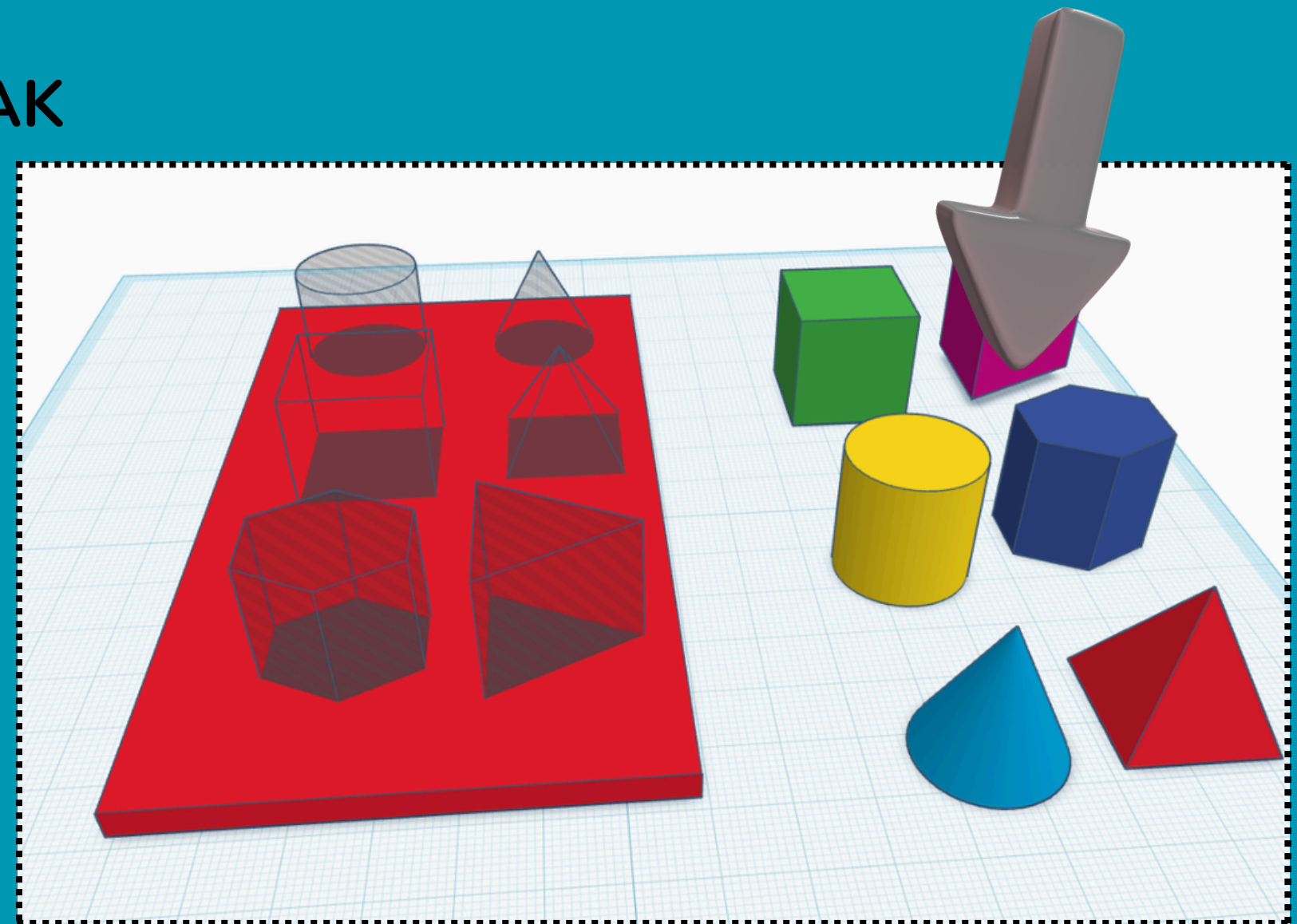
1. BOX(KVADAR), POVUCI NA RADNUU POVRŠINU
2. DIMENZIJE: 70 X 130 X 4
3. MODEL MORA BITI NASLONJEN NA RAVNINU





Izrada pločice/tijela

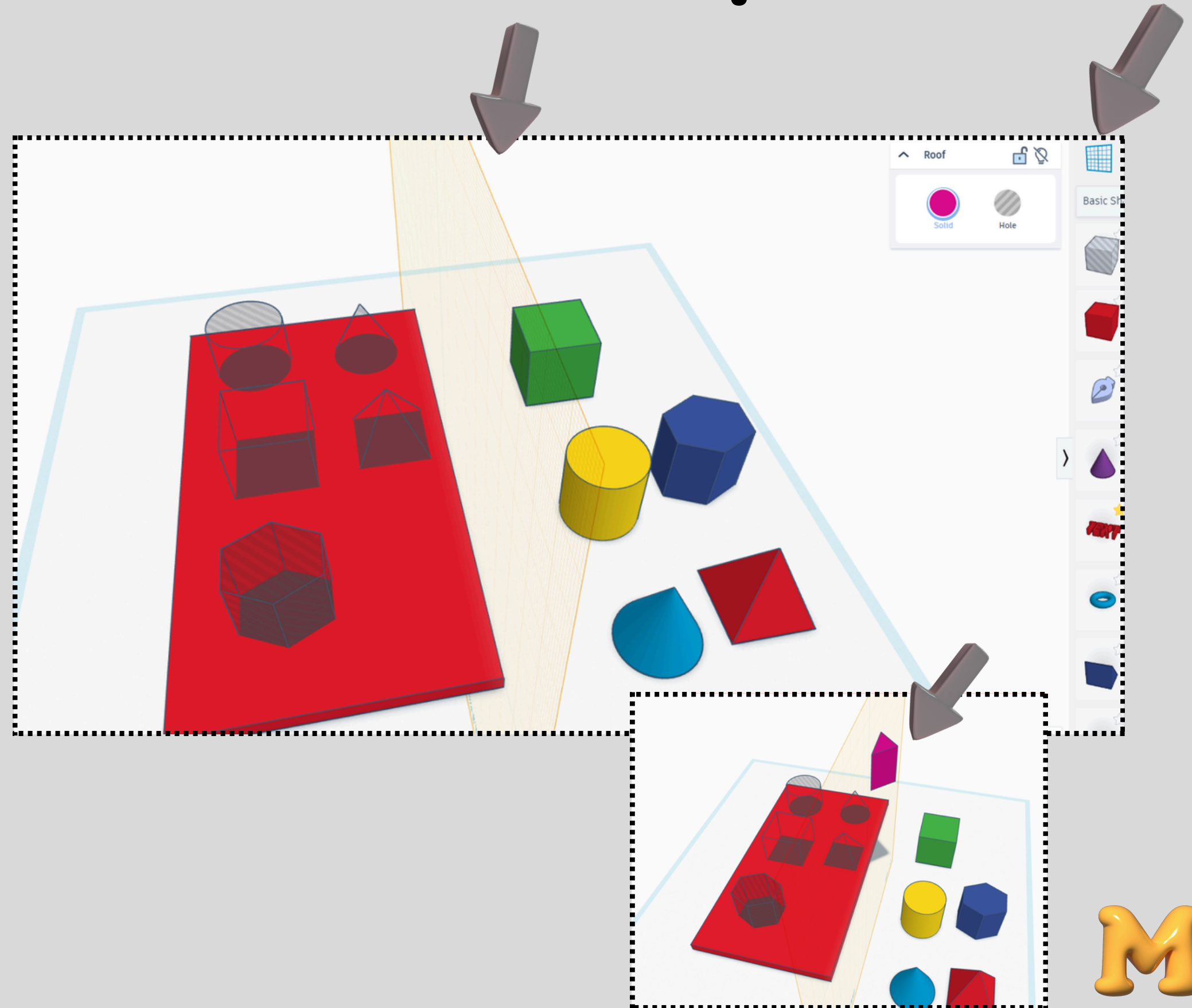
1. POVUCI NA RADNU POVRŠINU, VALJAK
2. DUPLICIRAJ VALJAK
3. POVEĆAJ MU PROMJER ZA 1 MM
4. DIMENZIJE: 21 X 21
5. ODVUCI MODEL NA POSTOLJE
6. ODIGNI OD PODLOGE GA ZA 2 M
7. NAPRAVI ŠUPLJINU
8. DIZAJNIRAJ PREOSTALA TIJELA





Izrada pločice/trostrana prizma

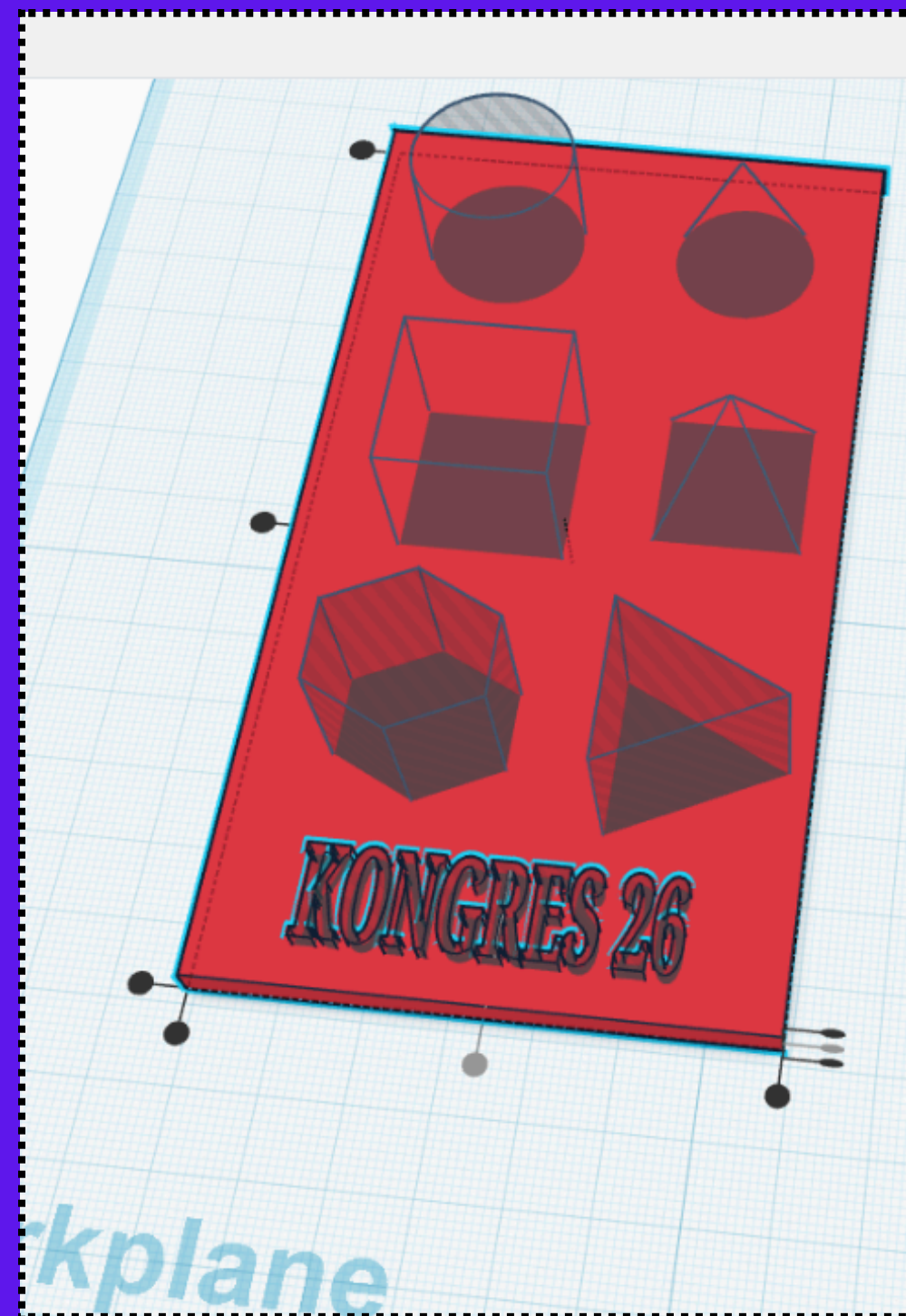
1. DODAJ NOVU RAVNINU
2. DODAJ NA ŽUTOJ RAVNINI PRIZMU
3. UKLONI RAVNINU
4. SPUSTI PRIZMU NA POSTOLJE
5. DUPLICIRAJ I ODVUCI
6. PROMIJENI DIMENZIJE: 21 X 21
7. ODIGNI OD PODLOGE GA ZA 2 M
8. NAPRAVI ŠUPLJINU





Izrada pločice/natpis

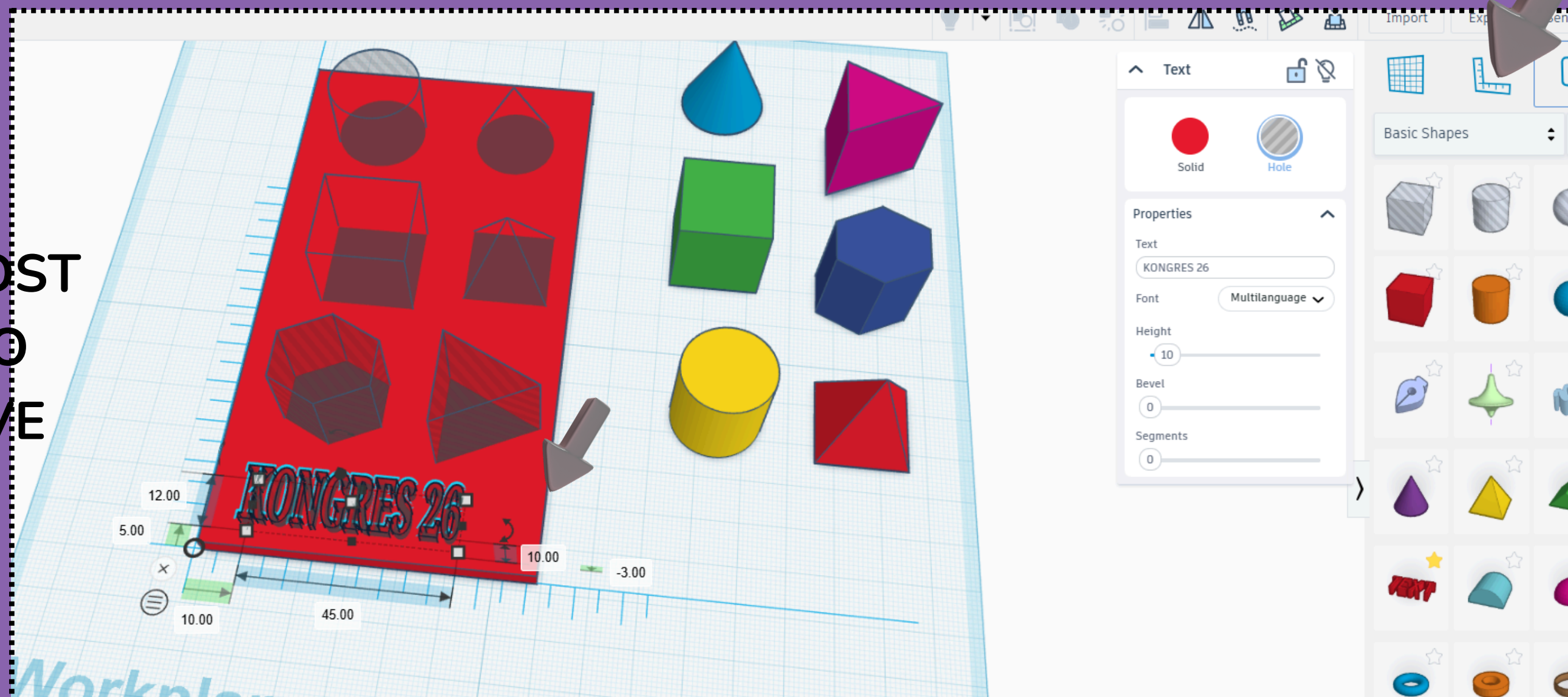
1. KORISTI TEKST
2. NAPIŠI NATPIS
3. POSTAVI NA PLOČICU
4. POVEĆAJ VISINU
5. SPUŠTI ISPOD RAVNINE
6. PRETVORI U ŠUPLJINU
7. PORAVNAJ KORISTEĆI SE ALATOM ALIGN





Izrada pločice/korištenje ravnala

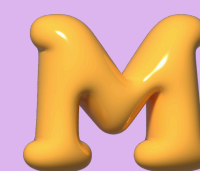
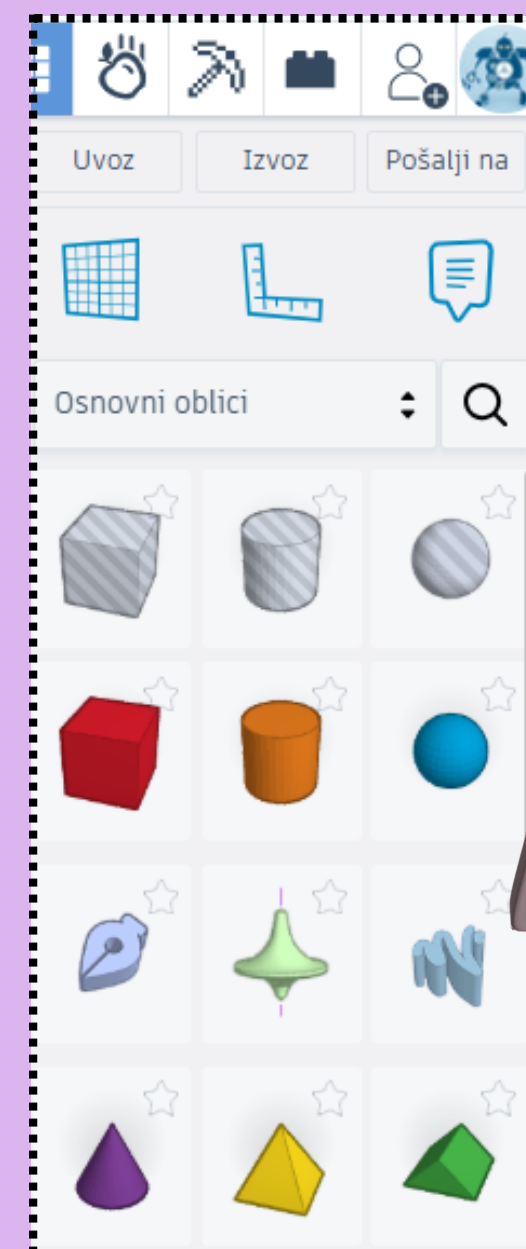
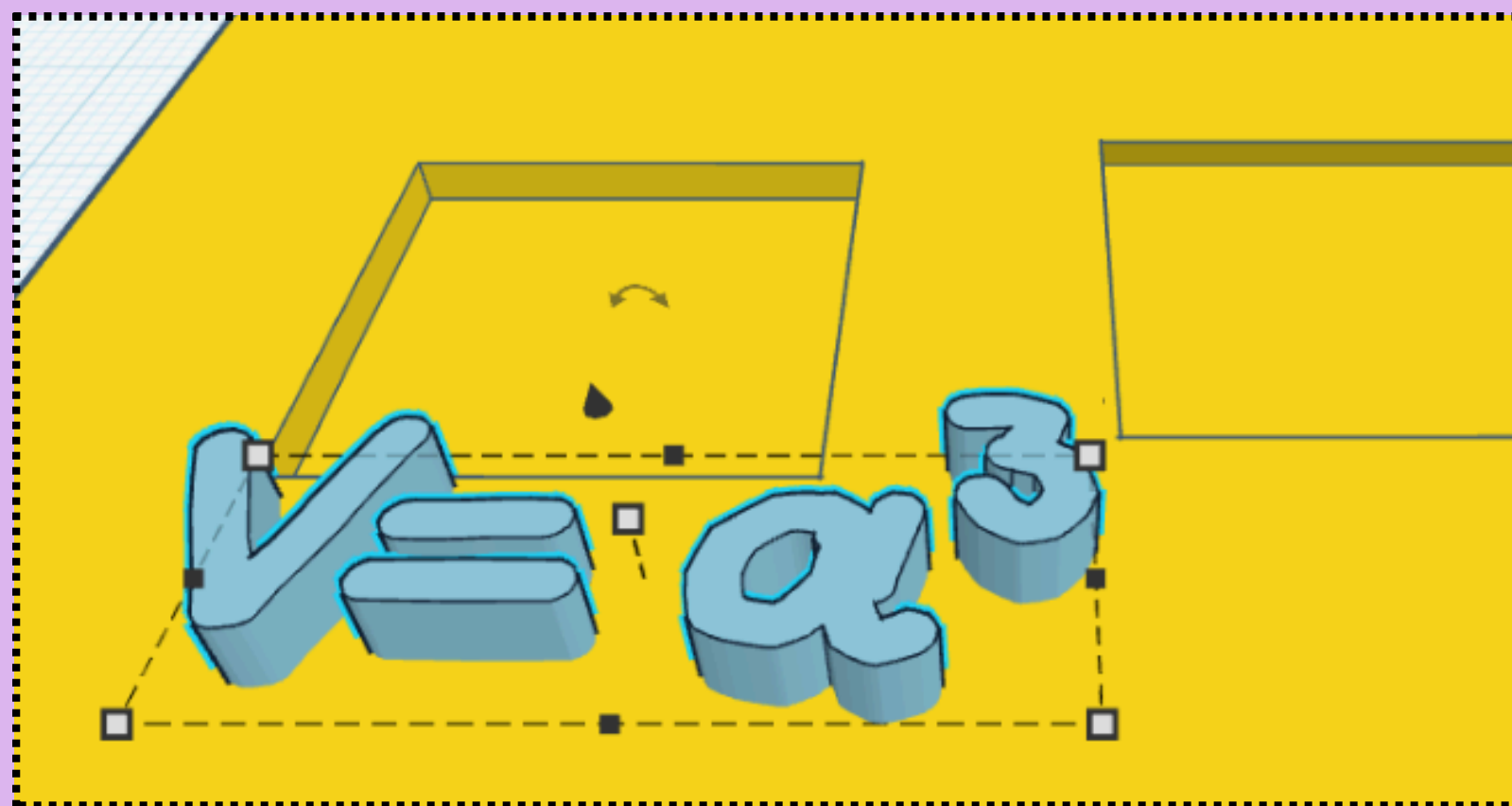
1. AKTIVIRAJ RAVNALO
2. POSTAVI NATPIS NA ODREĐENU UDALJENOST
3. DEAKTIVIRAJ RAVNALO
4. OZNAČI I GRUPIRAJ SVE OBJEKTE NA PLOČI





Izrada pločice/ škrabanje

ALAT ZA MODELIRANJE I
PROSTORUČNO PISANJE



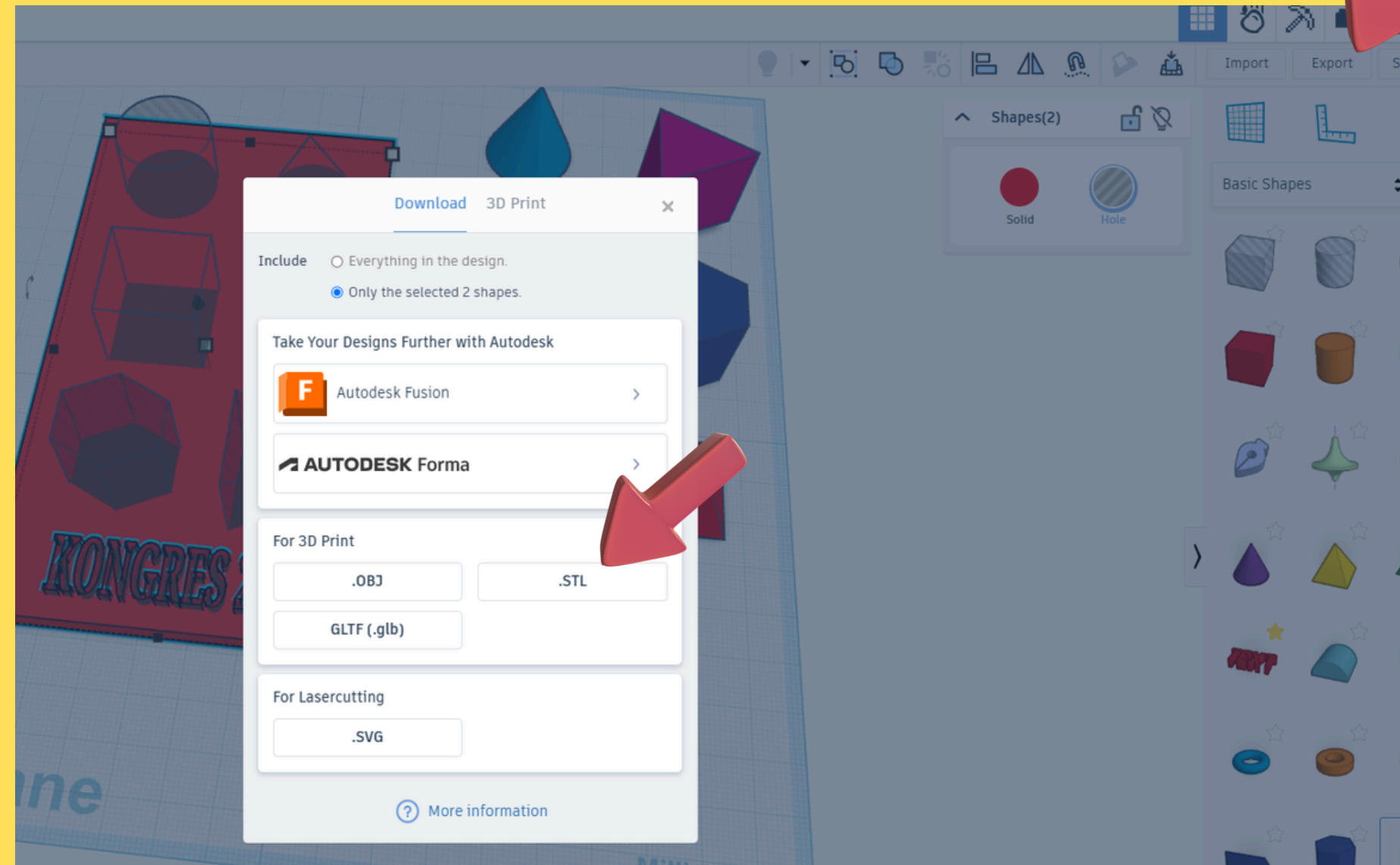


Izvoz modela kao priprema za ispis

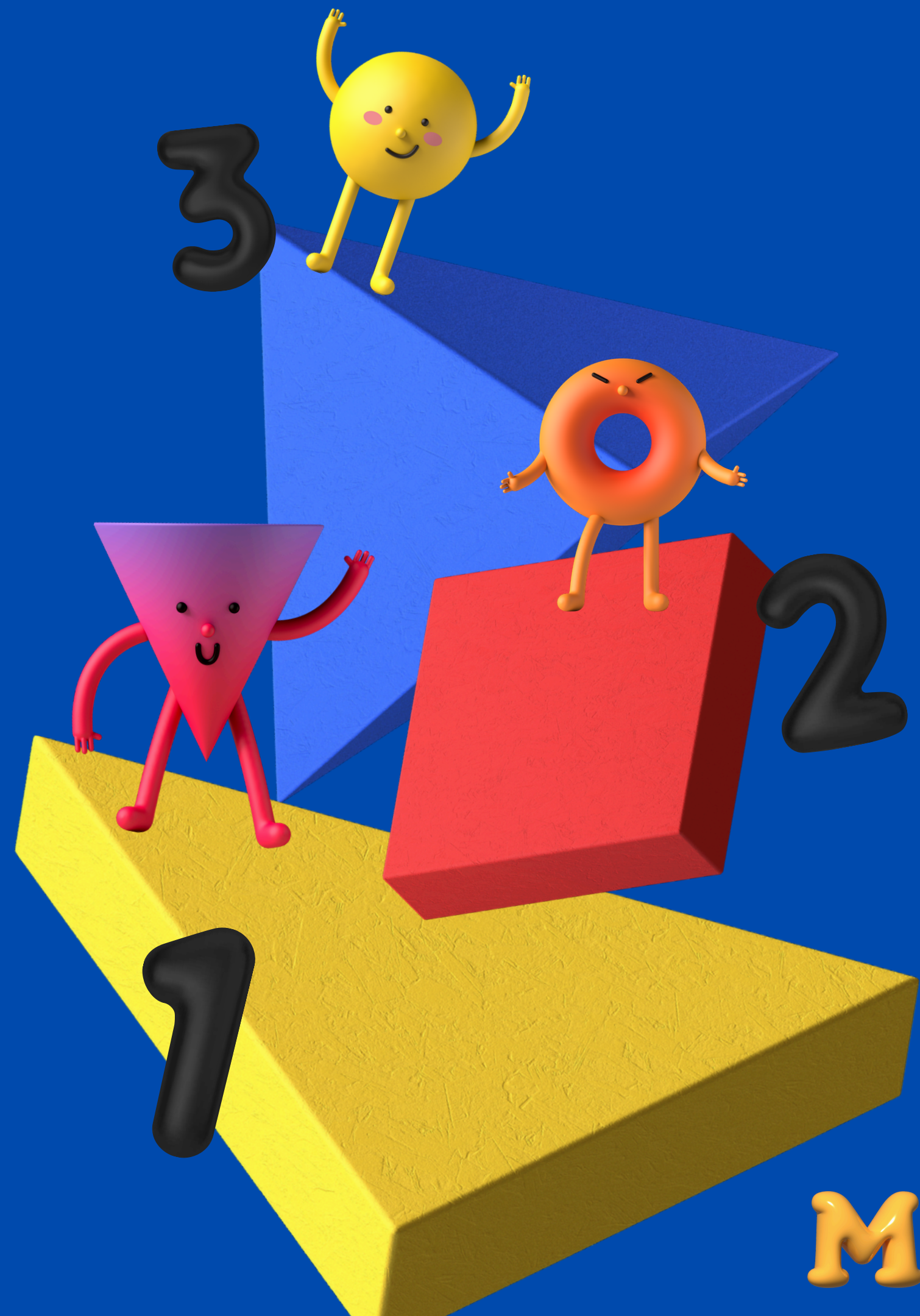
EXPORT



.STL

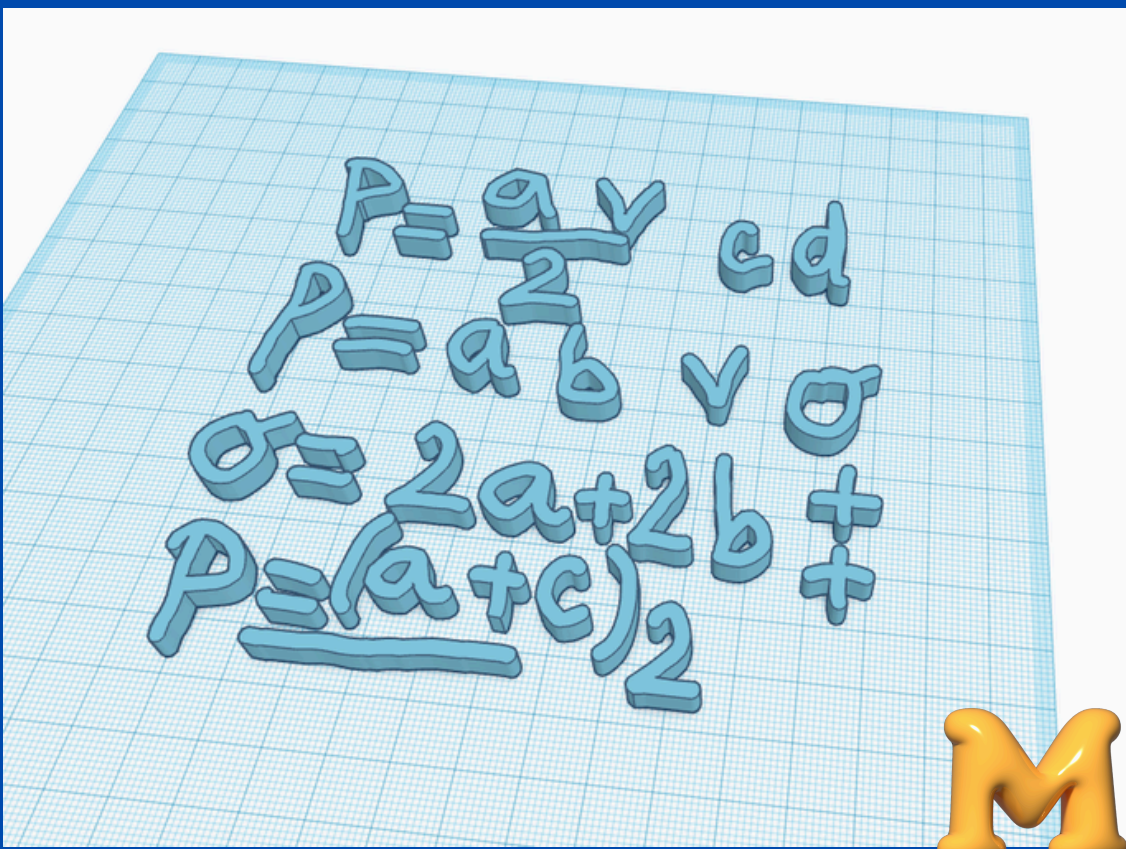
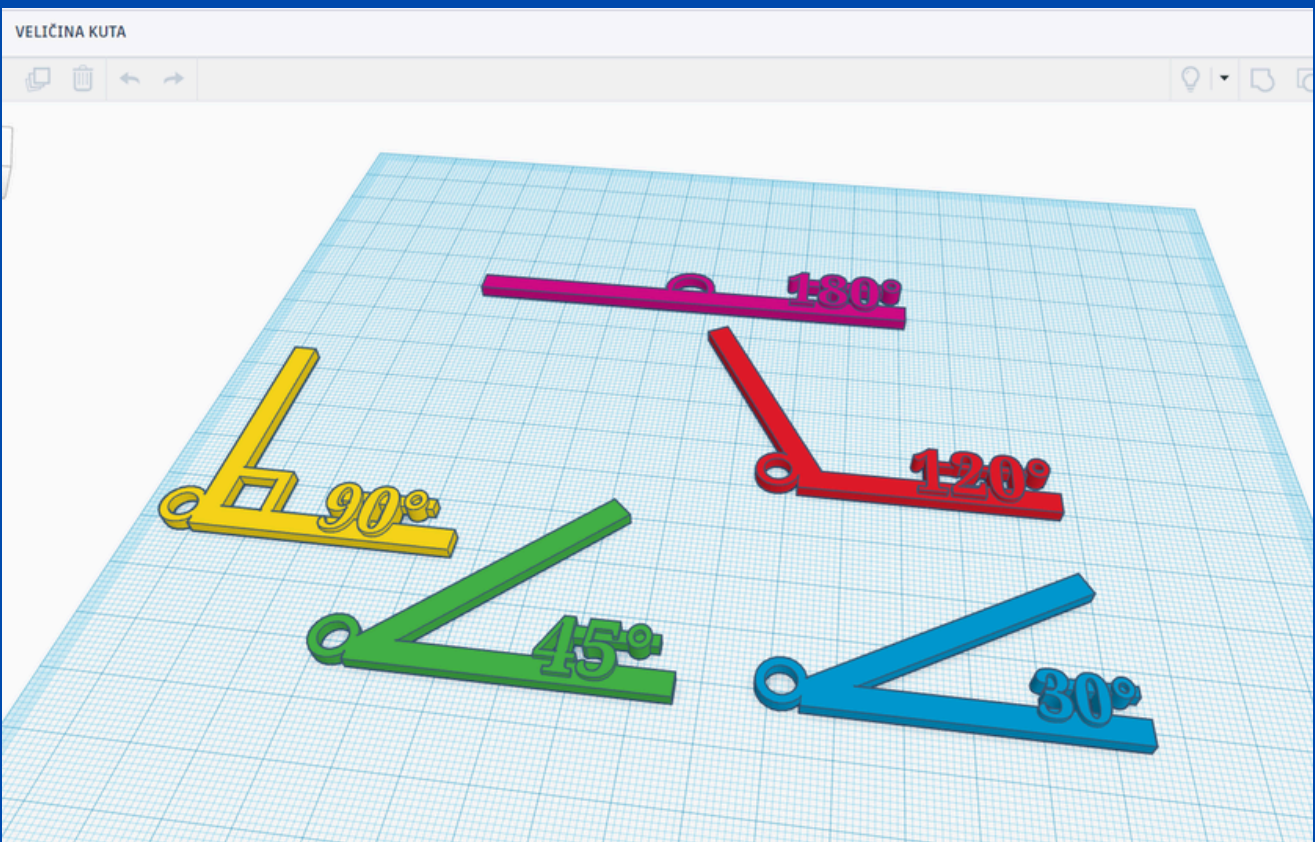
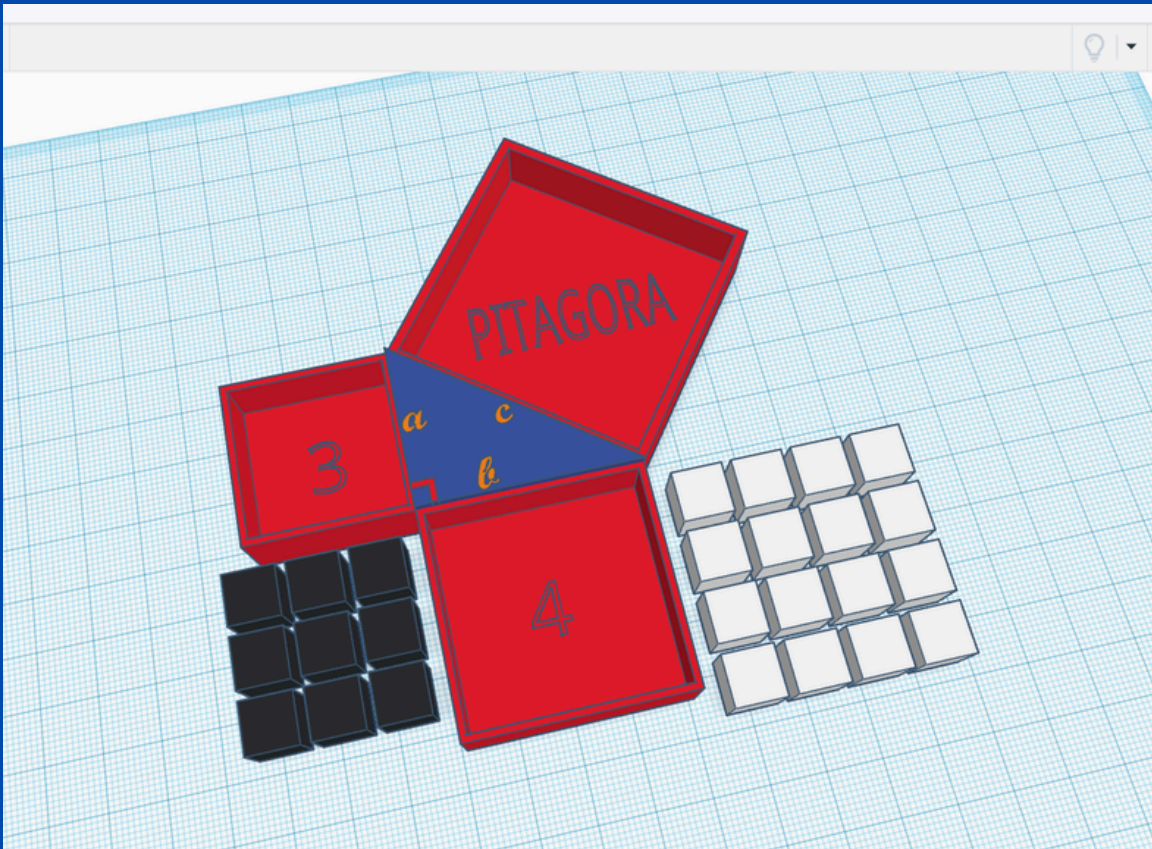
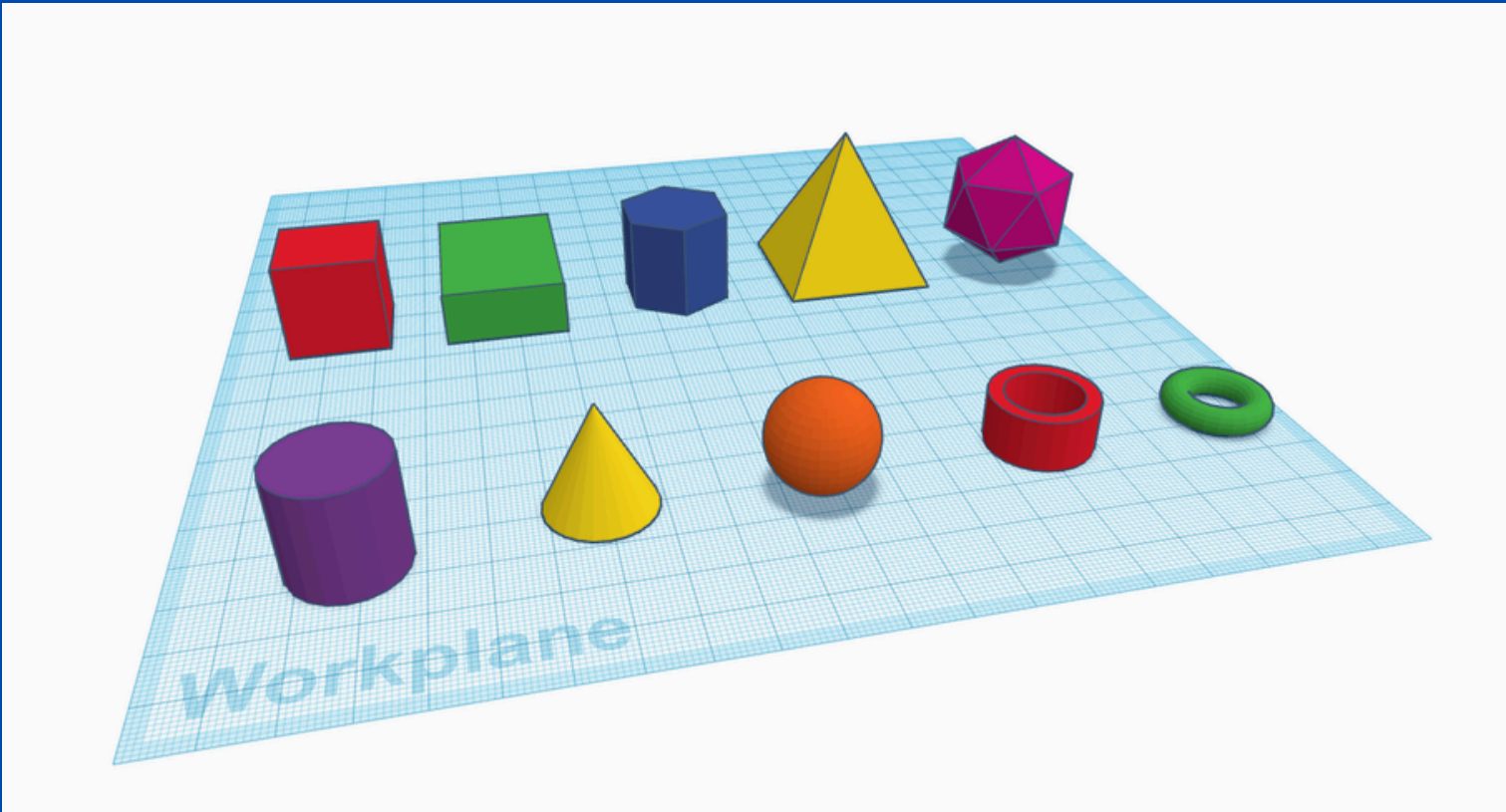
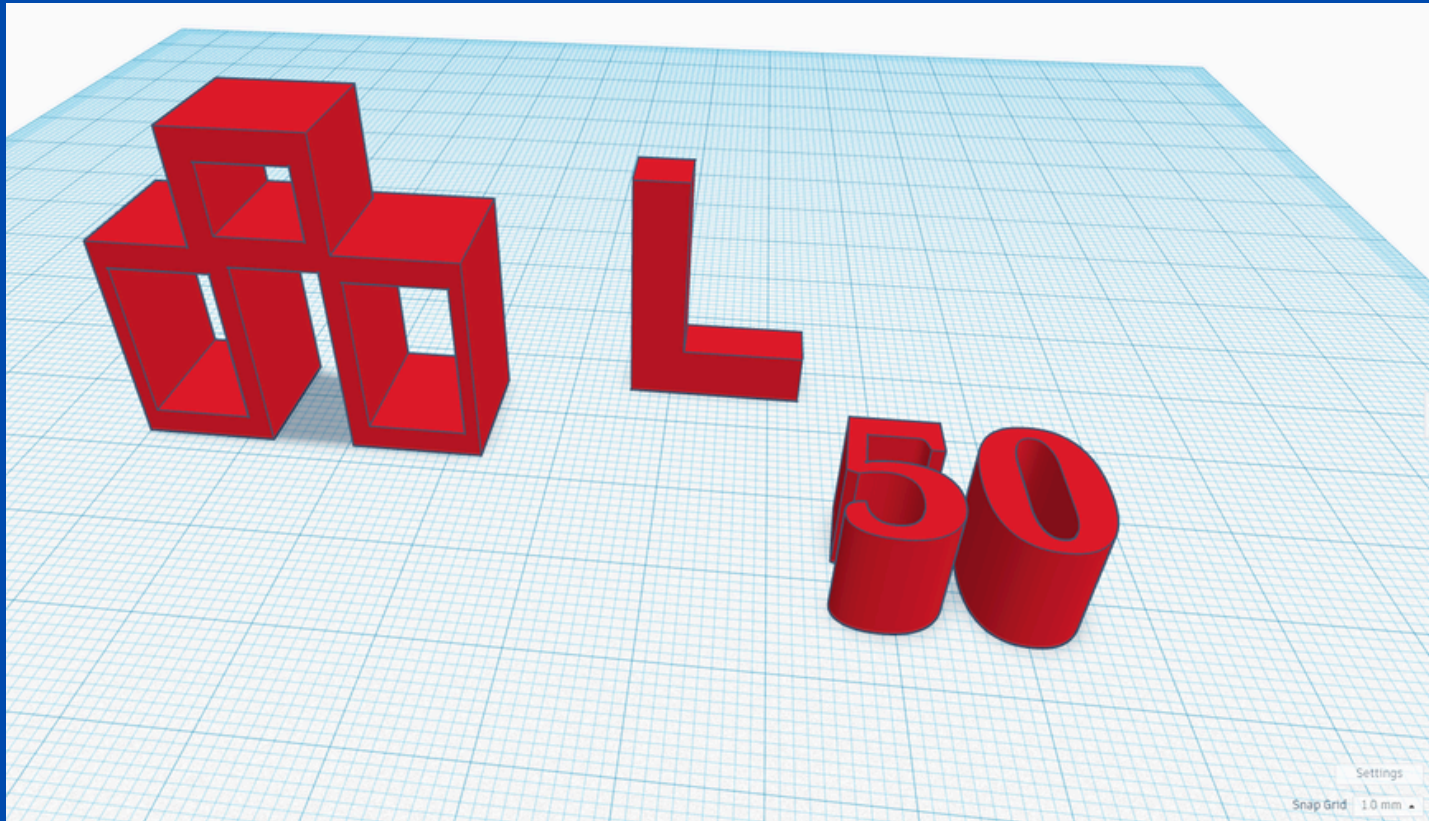


PRIMJENA U MATEMATICI

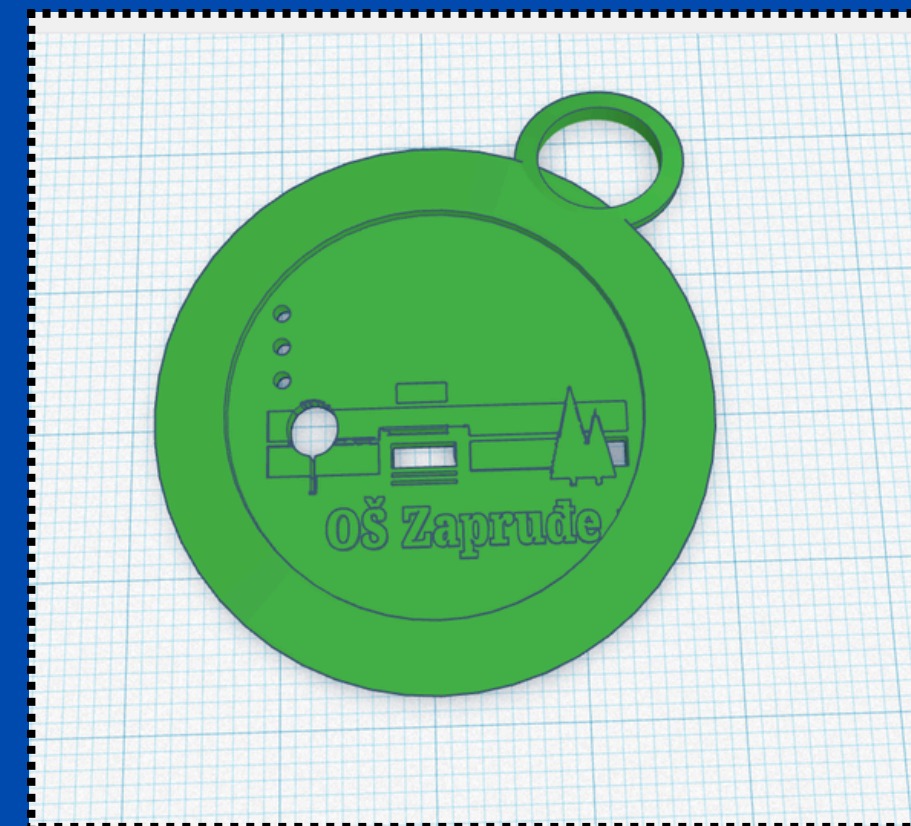
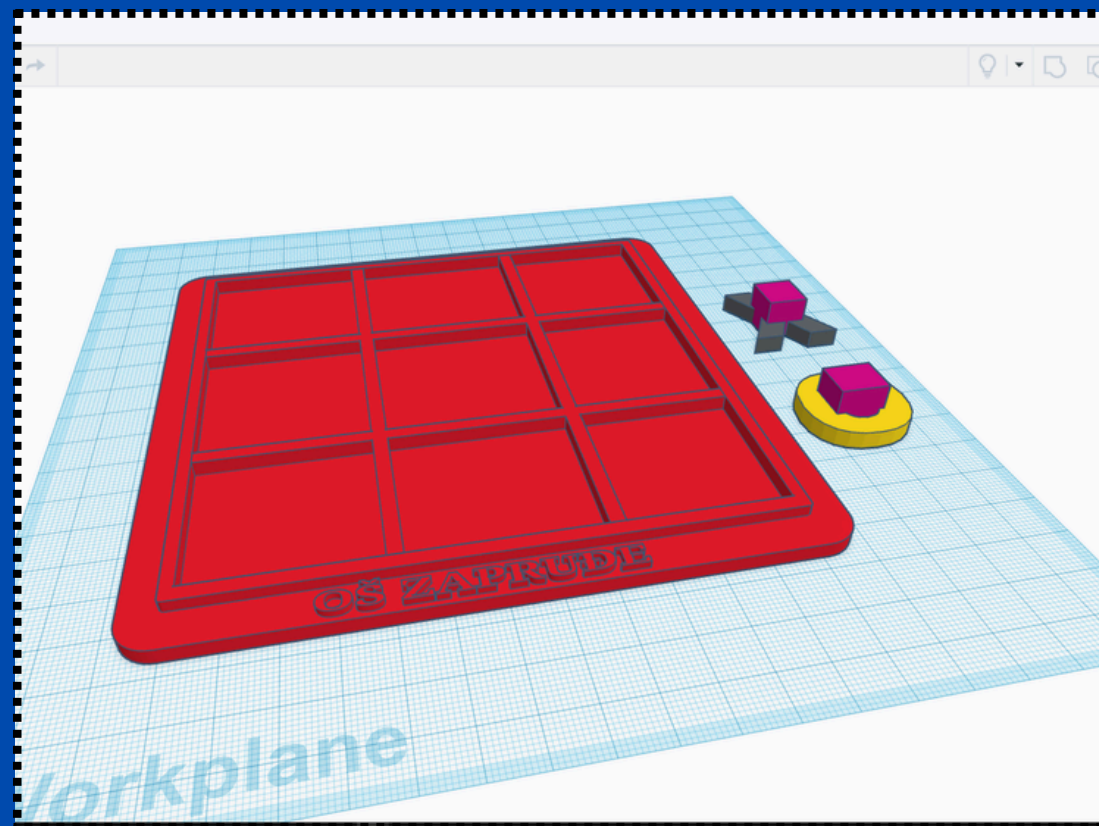
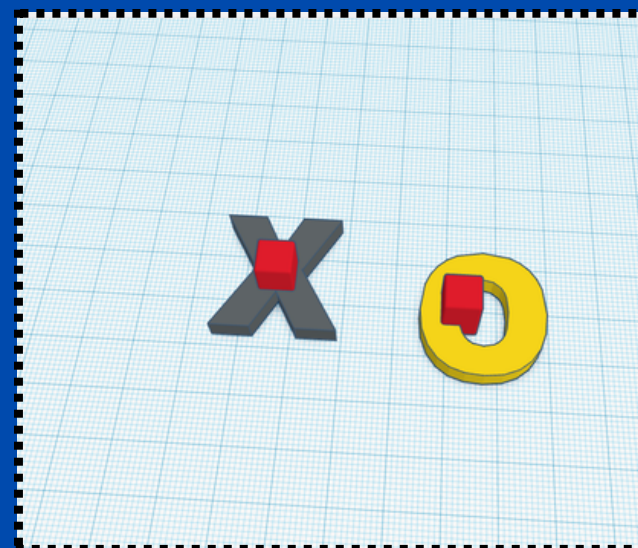


MATEMATIKA

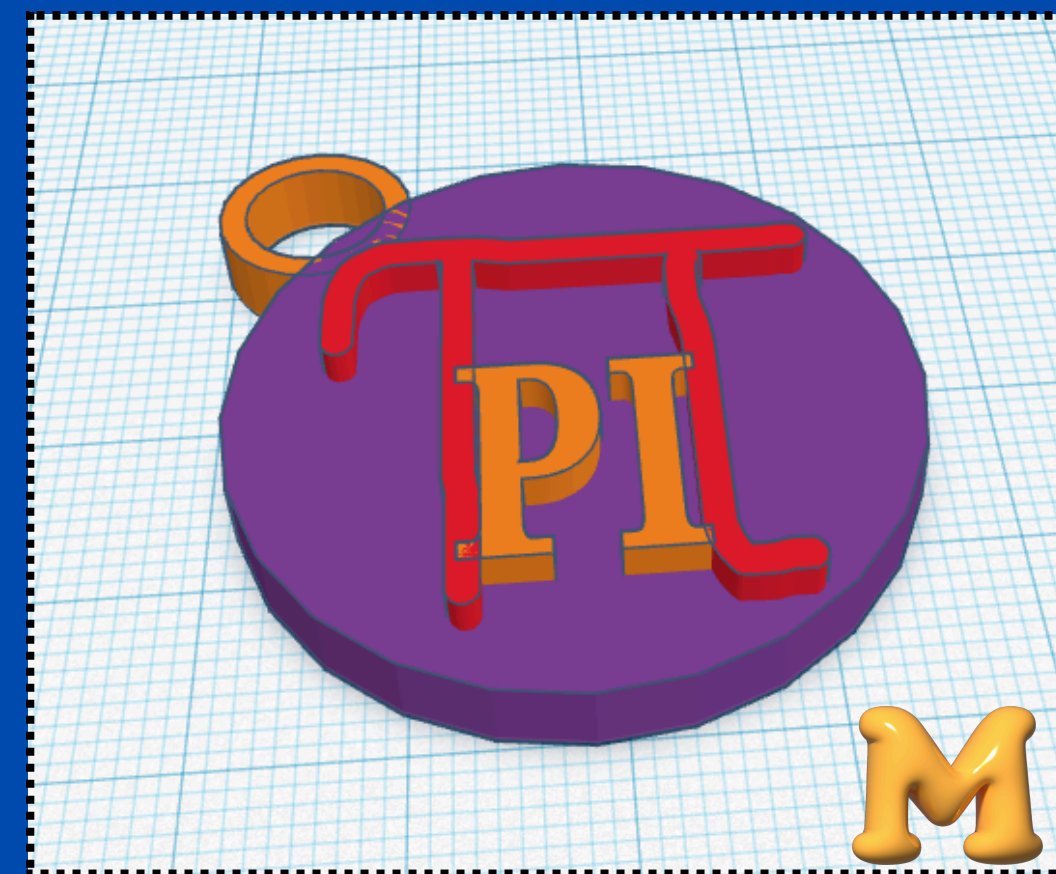
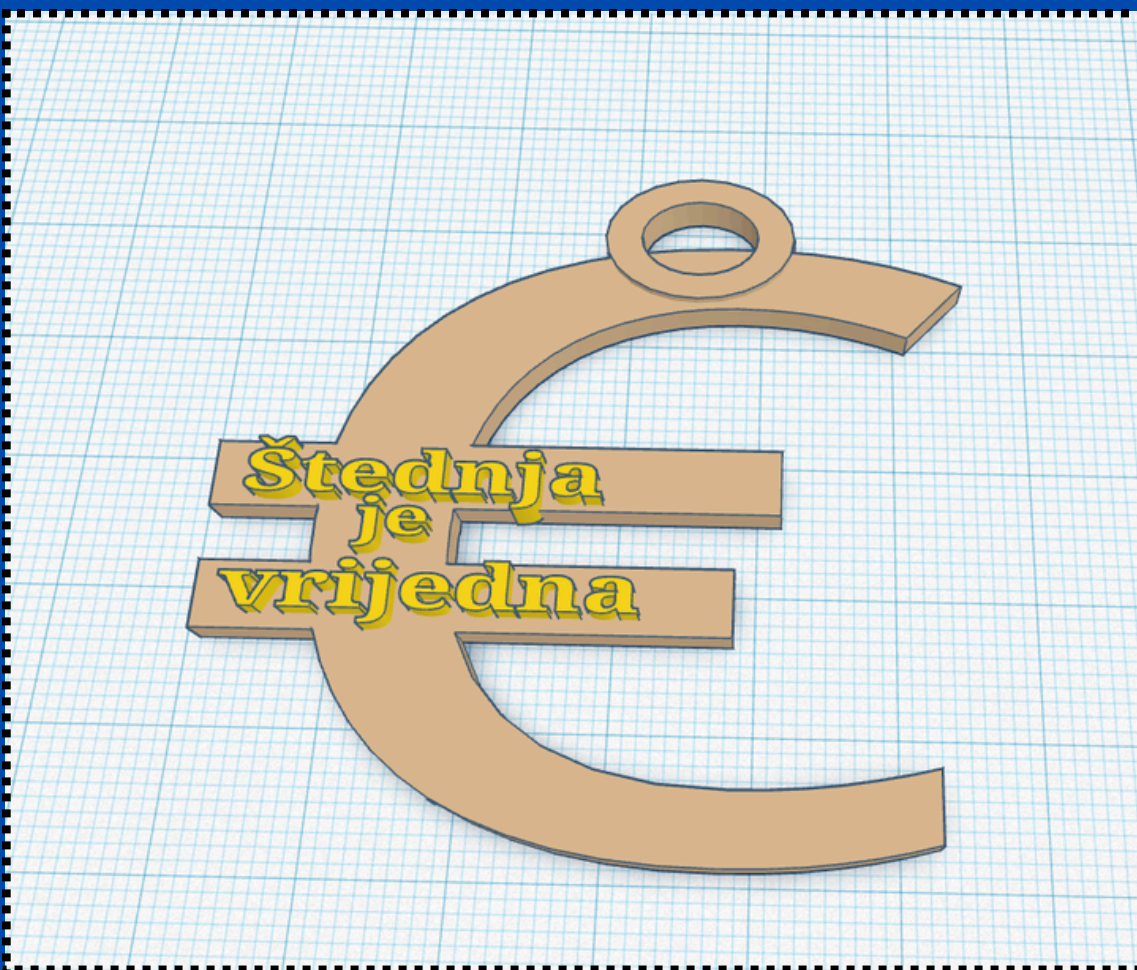
UČILA



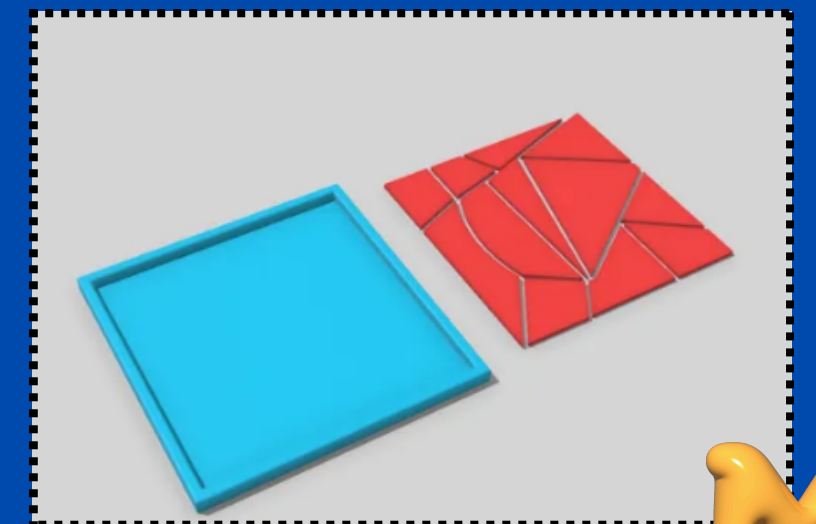
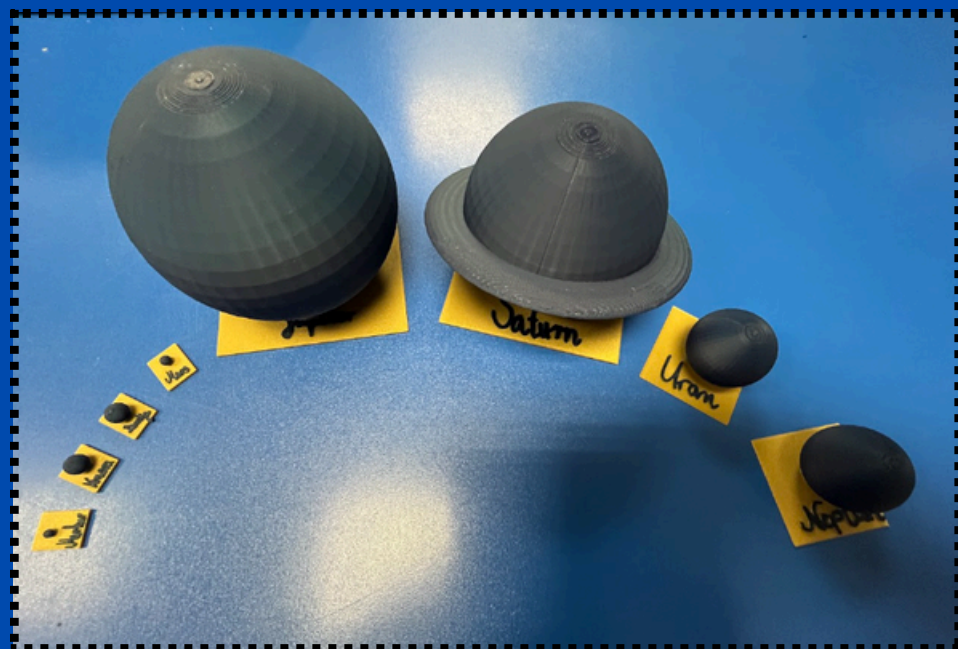
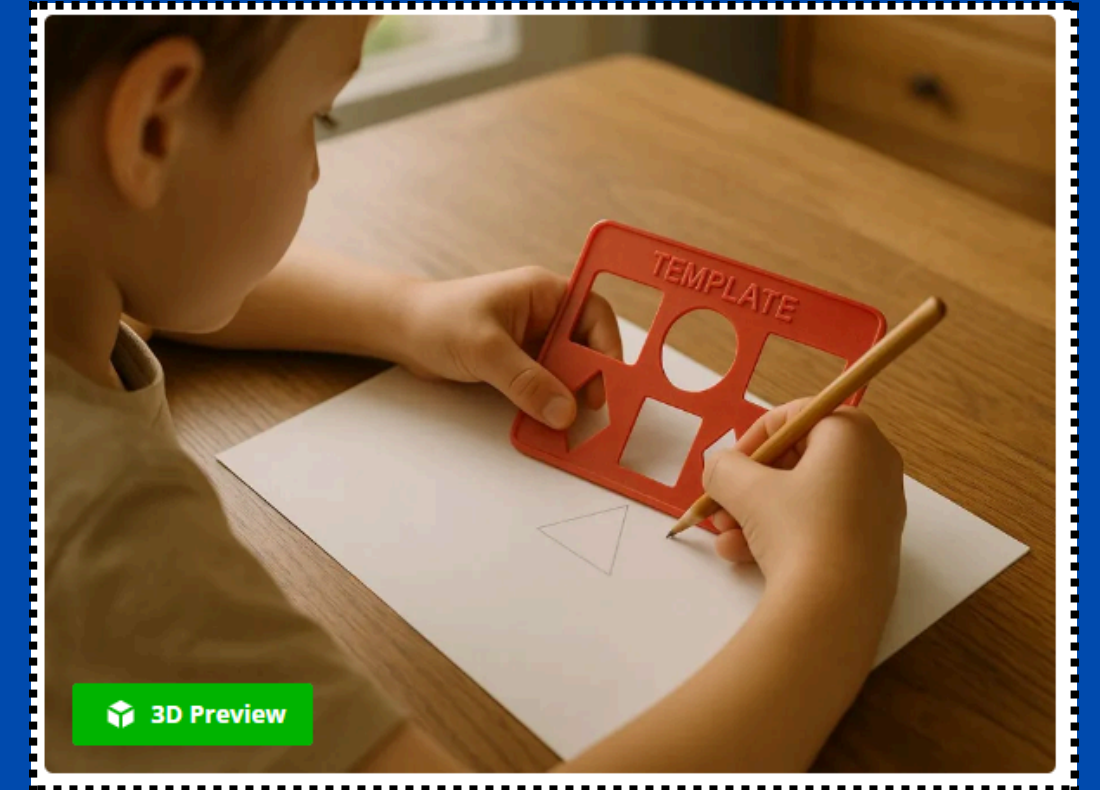
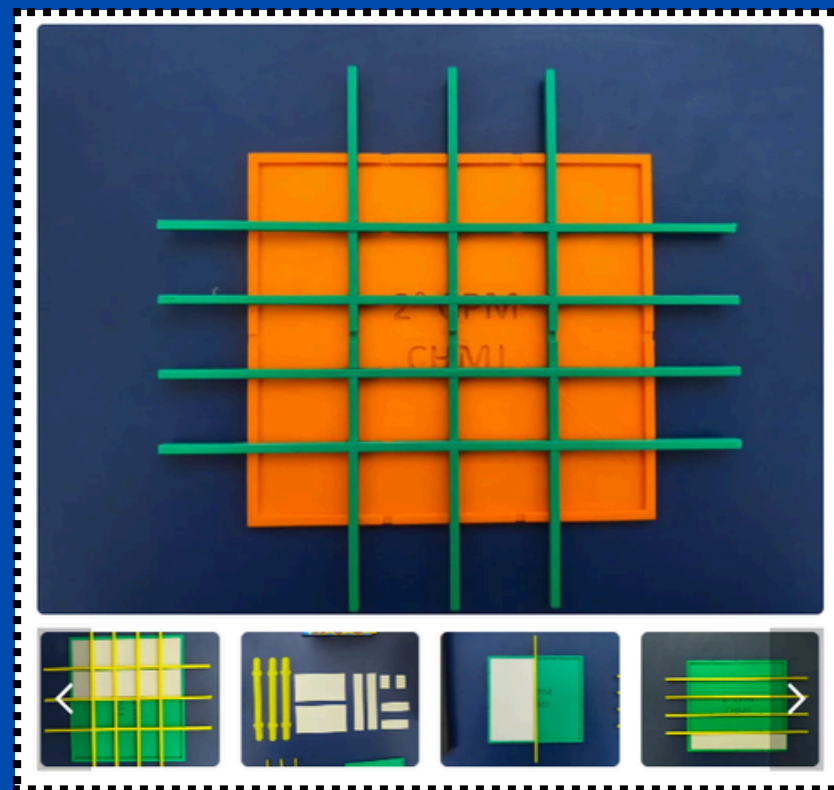
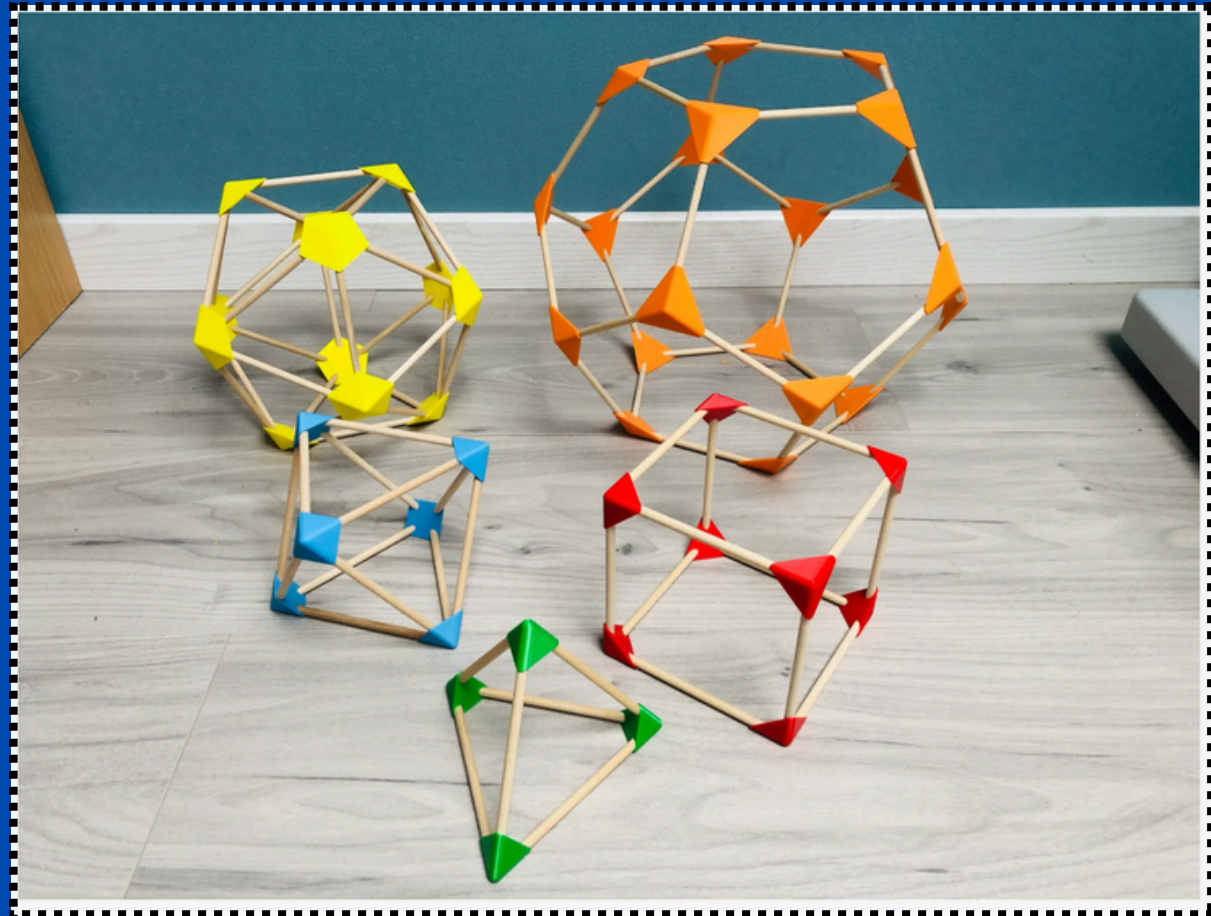
IZVANNASTAVNE AKTIVNOSTI



GRUPE, ZADRUGA, POSEBNI DANI, ASISTIVNA TEHNOLOGIJA



ZBIRKE



TINKERCAD

RAZREDI

TUTORIALI

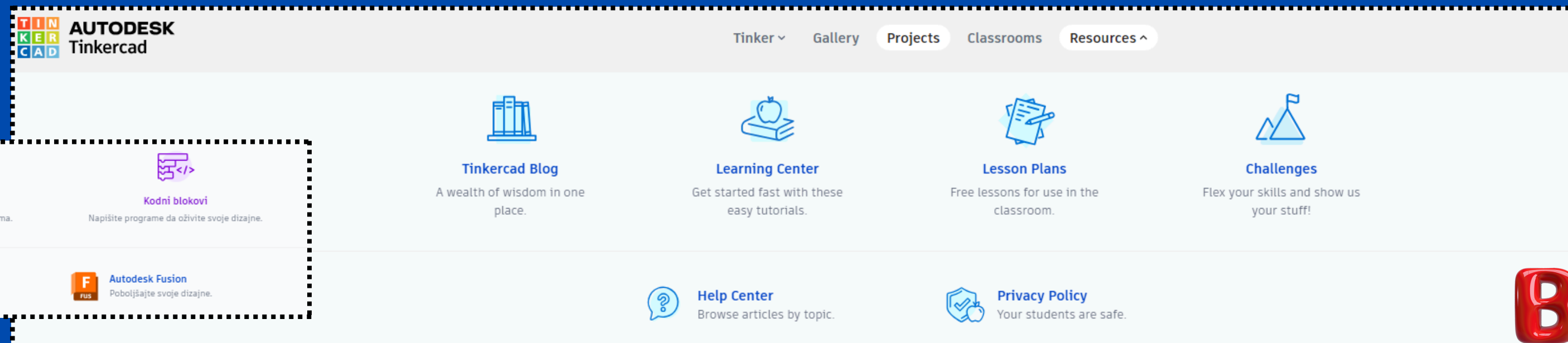
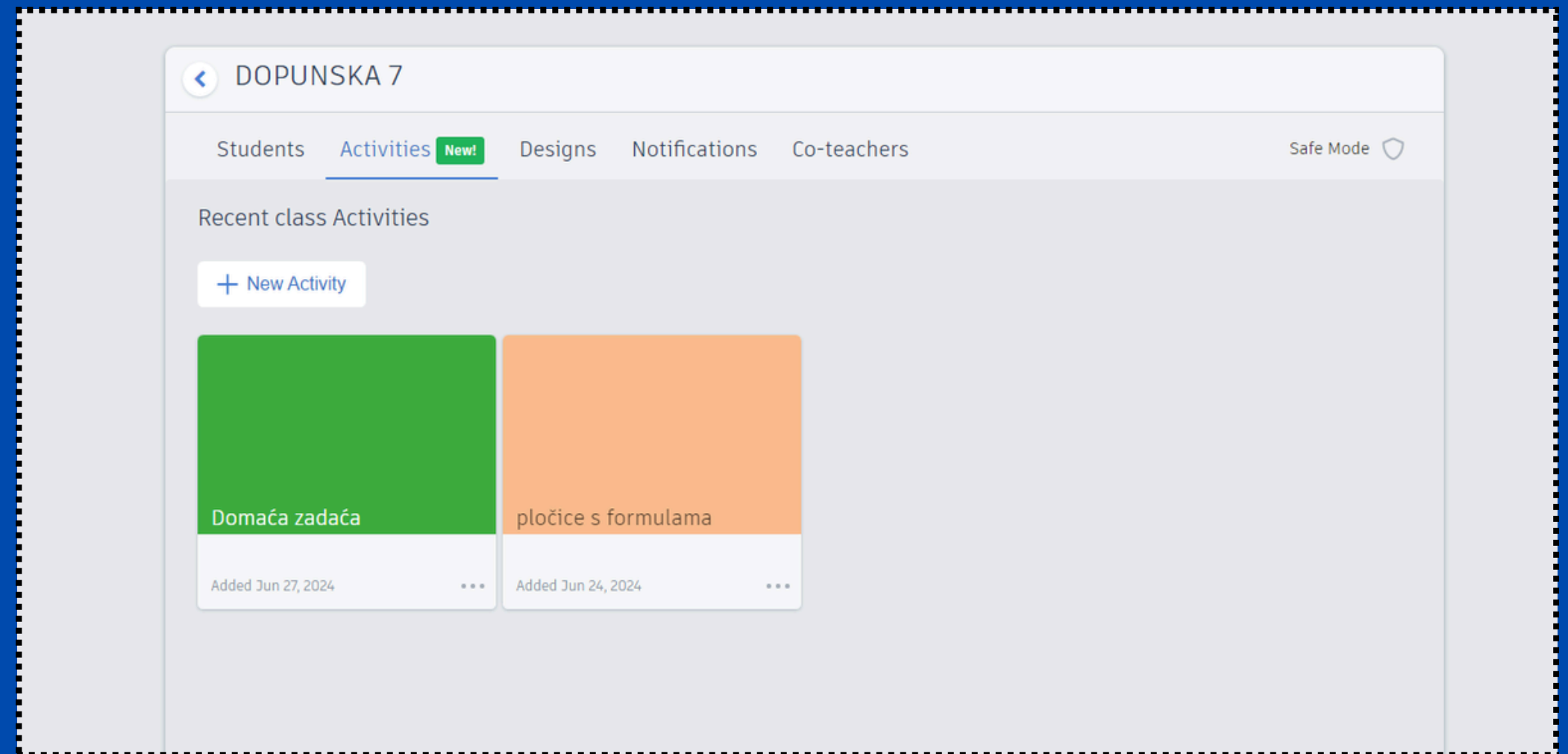
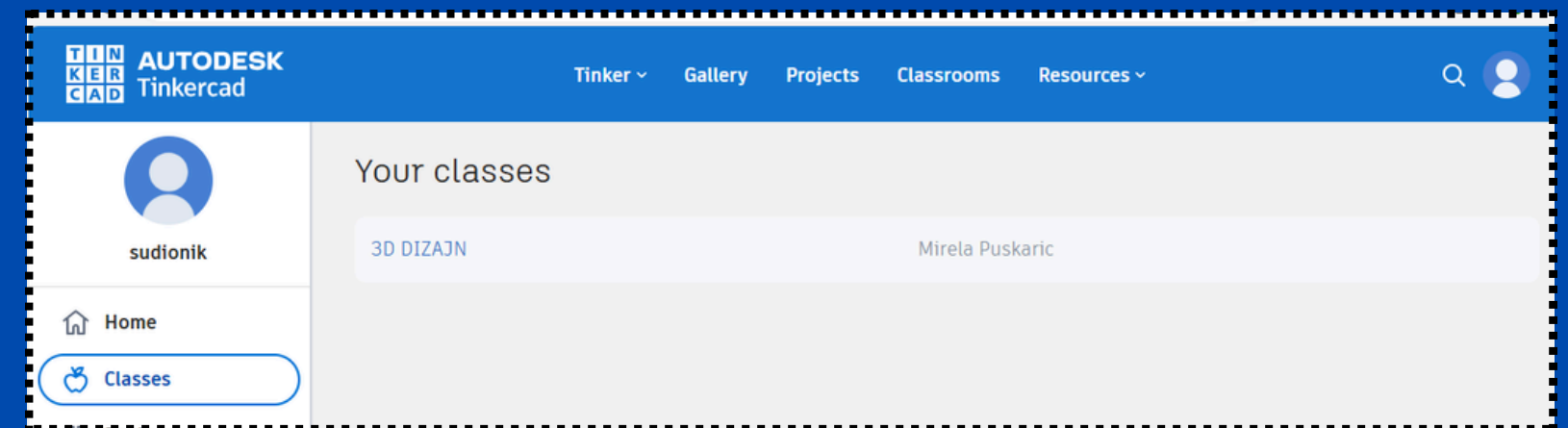
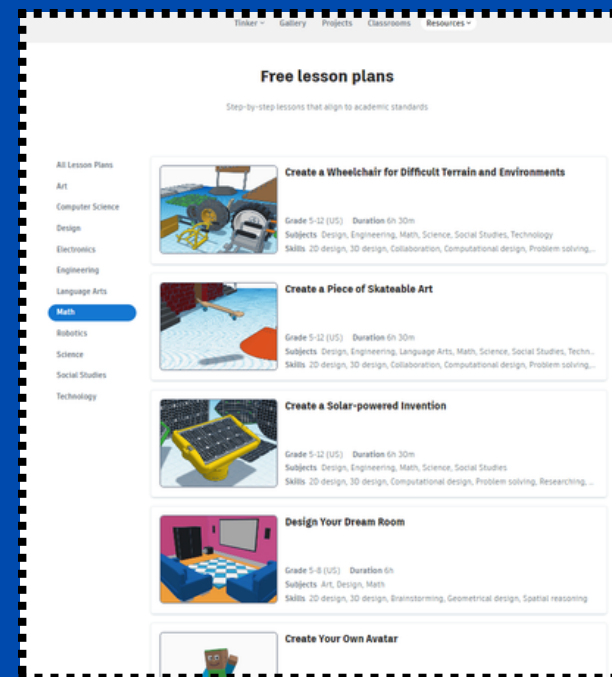
SCENARIJI
UČENJA

PROJEKTI

IZAZOVI

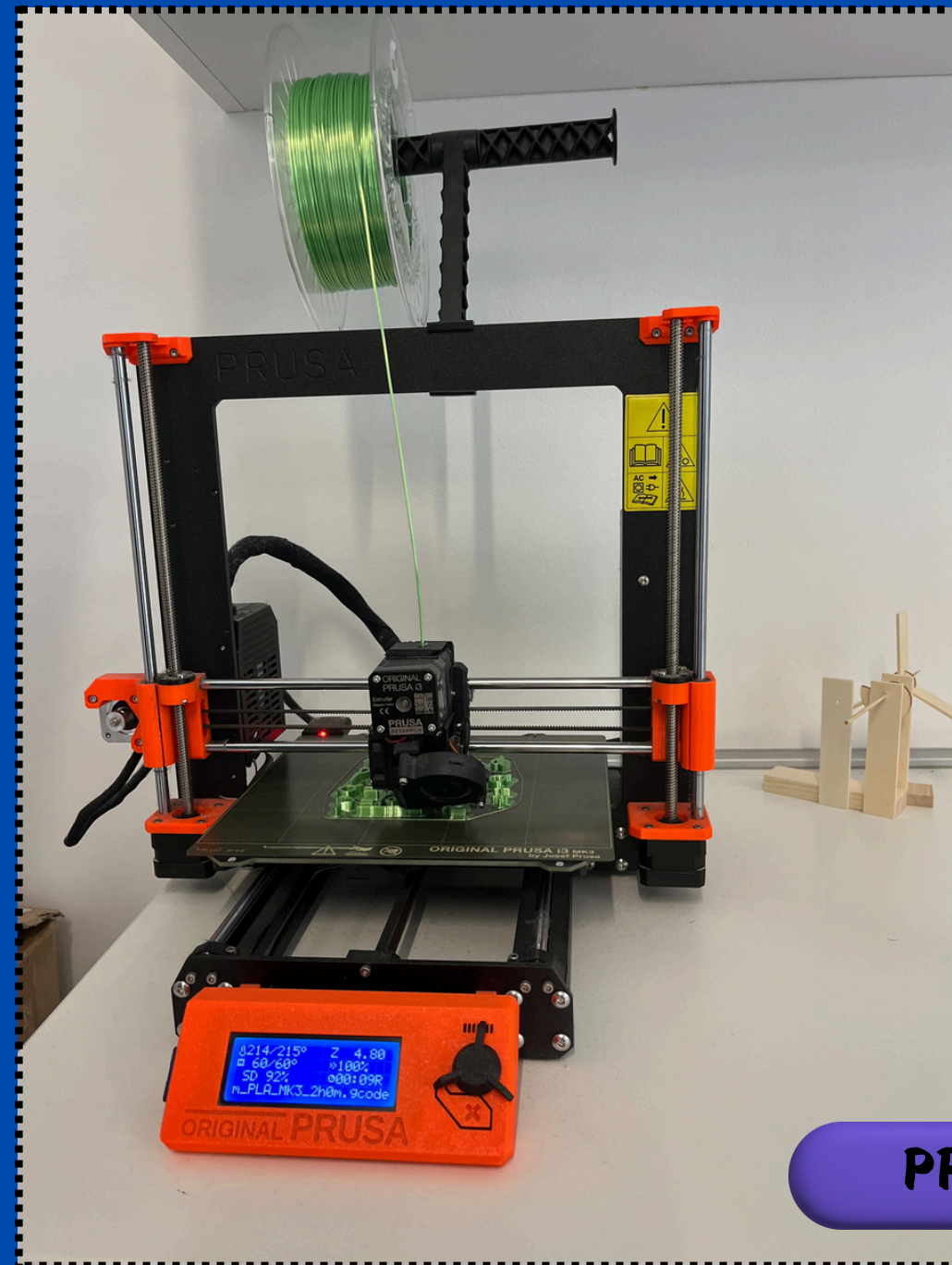
KRUGOVI

BLOKOVI





KUDA S
MODELOM?!



PRUSA

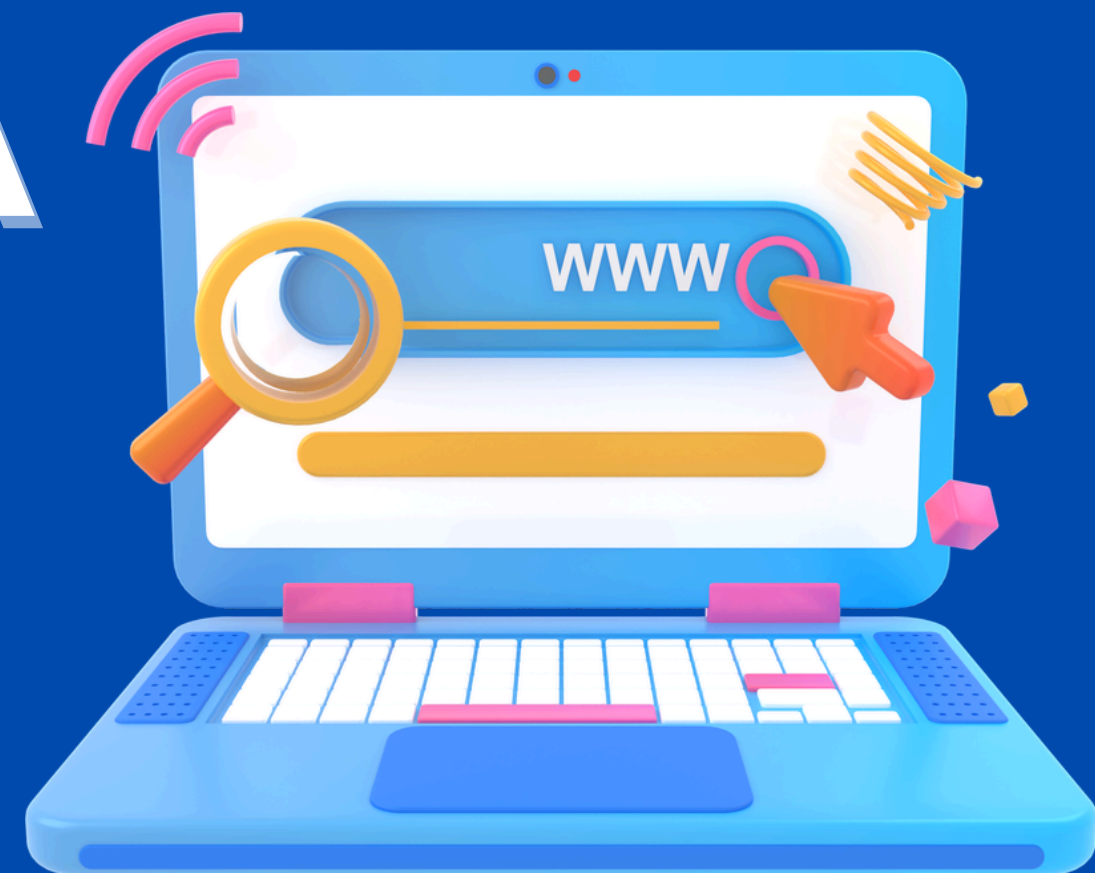


BAMBU LAB

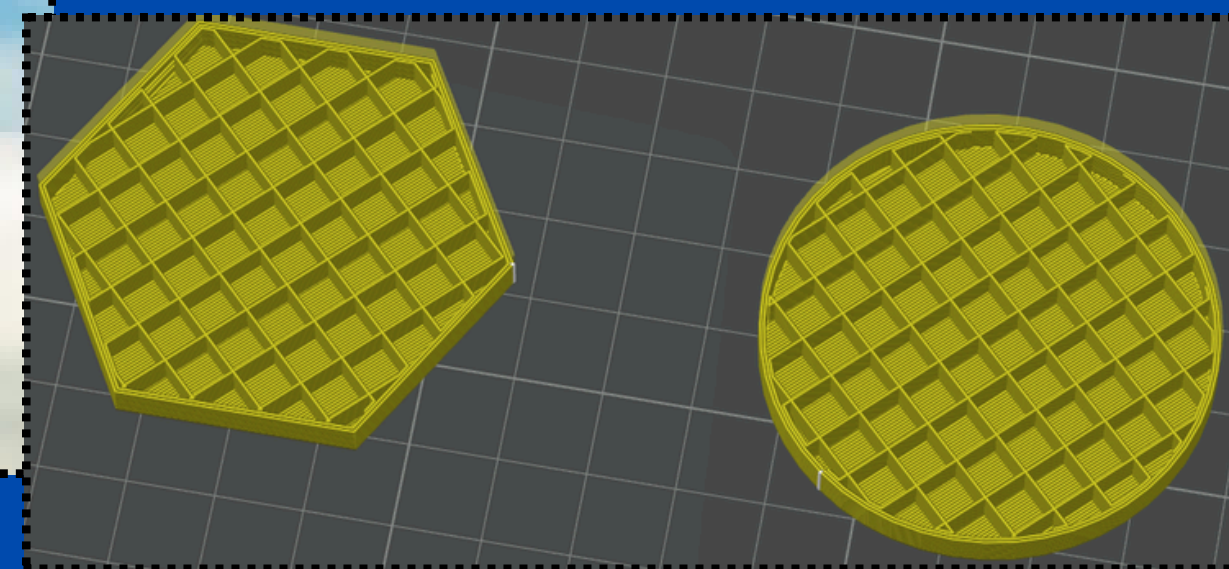
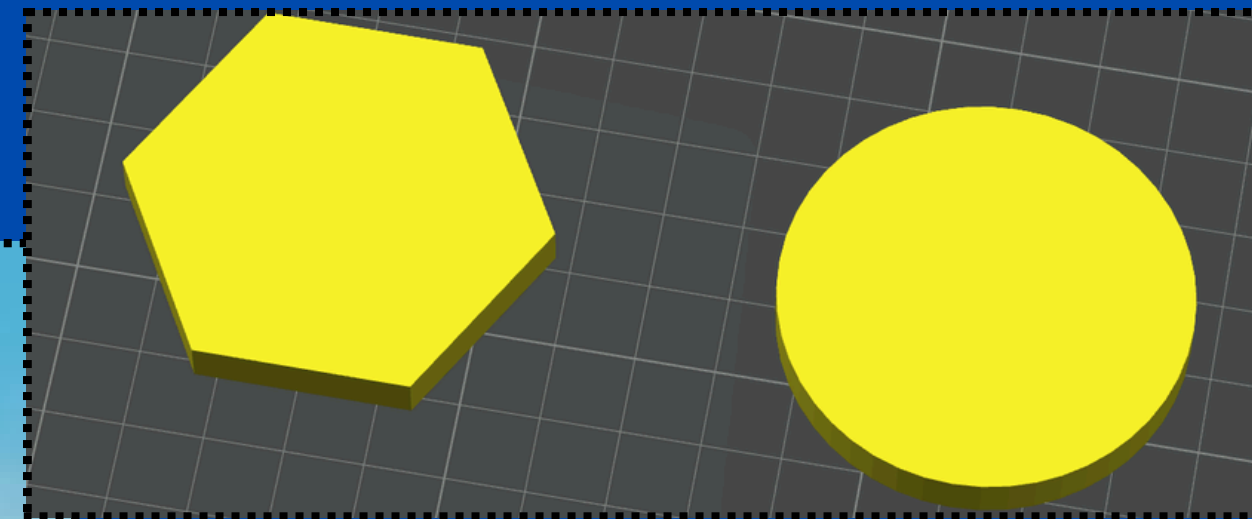


PRIPREMA MODELA ZA ISPIS

PROGRAMSKÁ PODRŠKA



PROGRAMI ZA SLICE-ANJE: BAMBU LAB STUDIO, CURA, PRUSA...

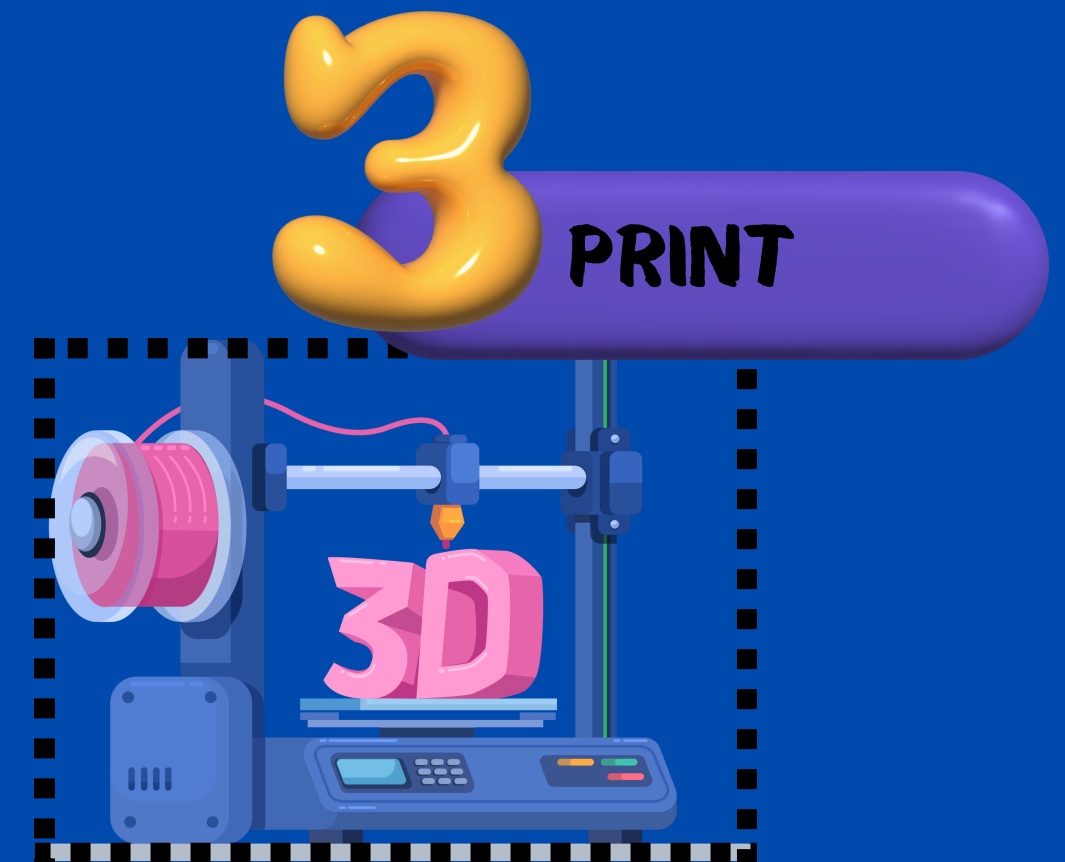


ISPIS NA 3D PISAČU



POSTAVKE 3D PISAČA

- POSTAVKE TEMPERATURE PODLOGE I SAPNICE
- NIVELIRANJE
- RADNA PODLOGA - ČISTA
- SUPPORT/POTPORA PRI ISPISU
- ZAGLAĐENOST ZAVRŠNIH SLOJEVA
- ISPIS U BOJI



VRSTE FILAMENTA

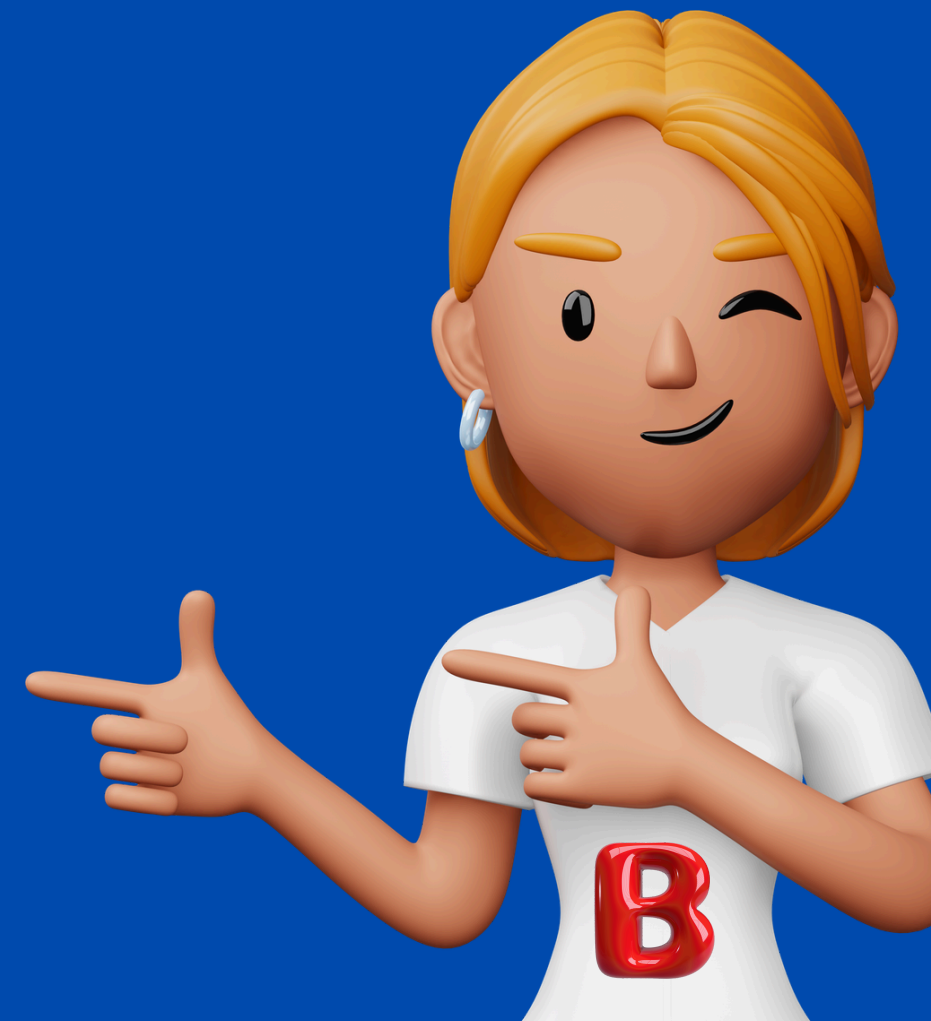


IZAZOVI



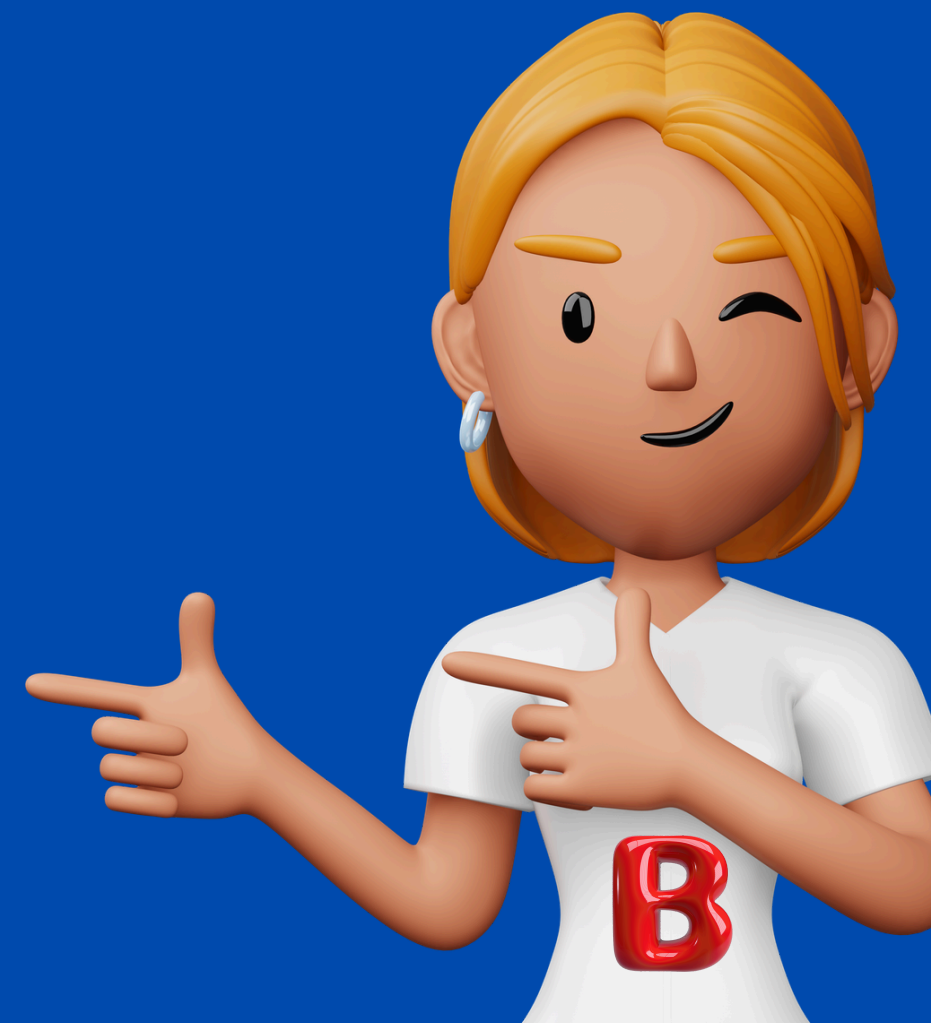
- (KALIBRIRANJE)
- POSTOJANOST I VRSTA FILAMENTA
- UTJECAJ NA EXTRUDER

RJEŠENJA: TUTORIALI, ZAJEDNICE



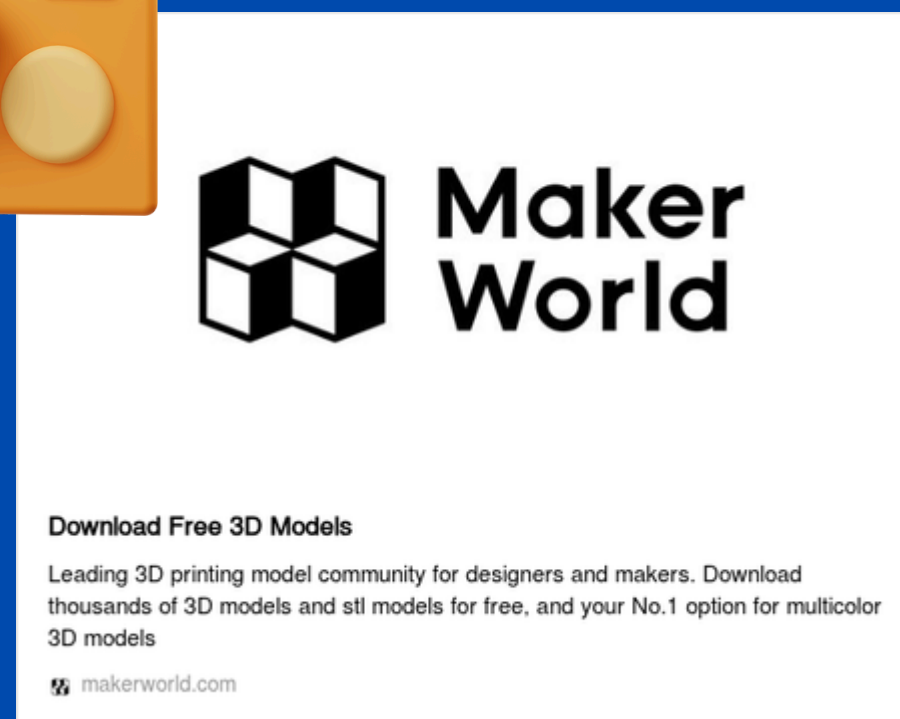
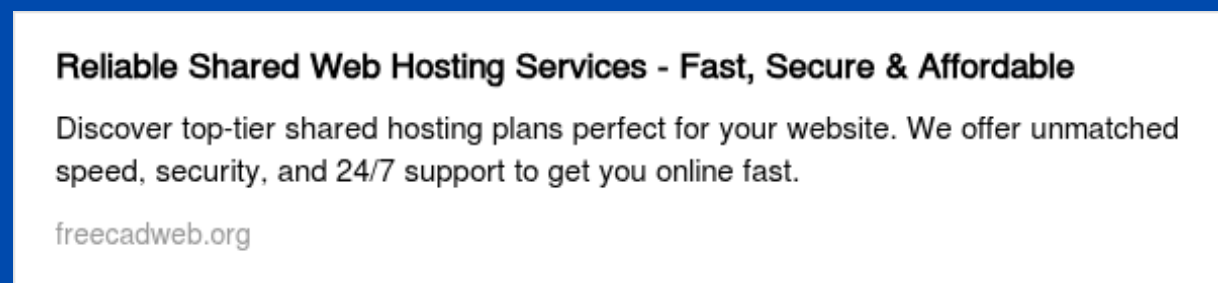
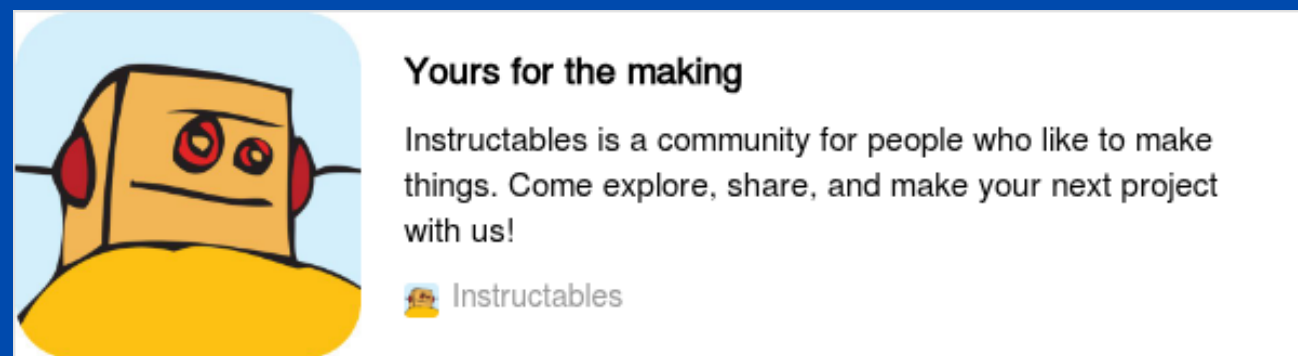
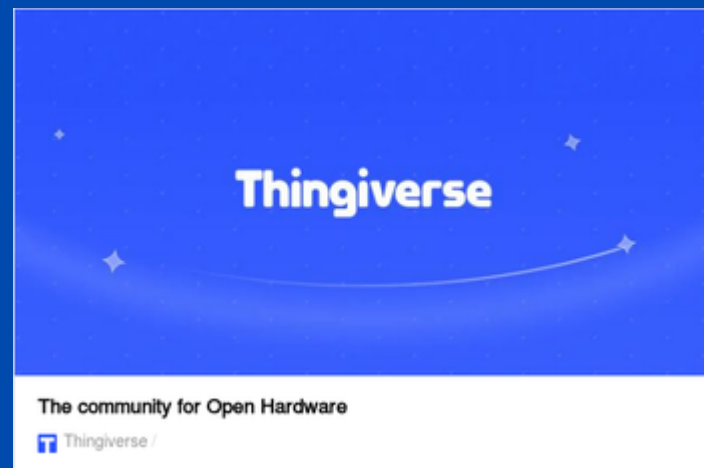


PITANJA



DODATNO

ZBIRKE GOTOVIH MODELA



IZ SLIKE U 3D MODEL





HVALA VAM NA SUDJELOVANJU!



B

bosiljko.djerek@skole.hr

M

mirela.puskaric@skole.hr



**KONGRES MATEMATIKE 2026.
ZNAČENJE**

$$-i^2 = 1$$

$$\Phi = 1.618 = 2$$

$$\pi = 3.142 = 3$$

$$2^2 = 4$$

$$g/2 = 4.903 = 5$$

$$\tau = 6.283 = 2\pi = 6$$

