Универзитет „Св. Кирил и Методиј“ во Скопје
Машински факултет - Скопје

Одбрани проекти по предметот:

ПРОИЗВОДИ ОД ПЛАСТИКА

Учебна година: 2021-2022

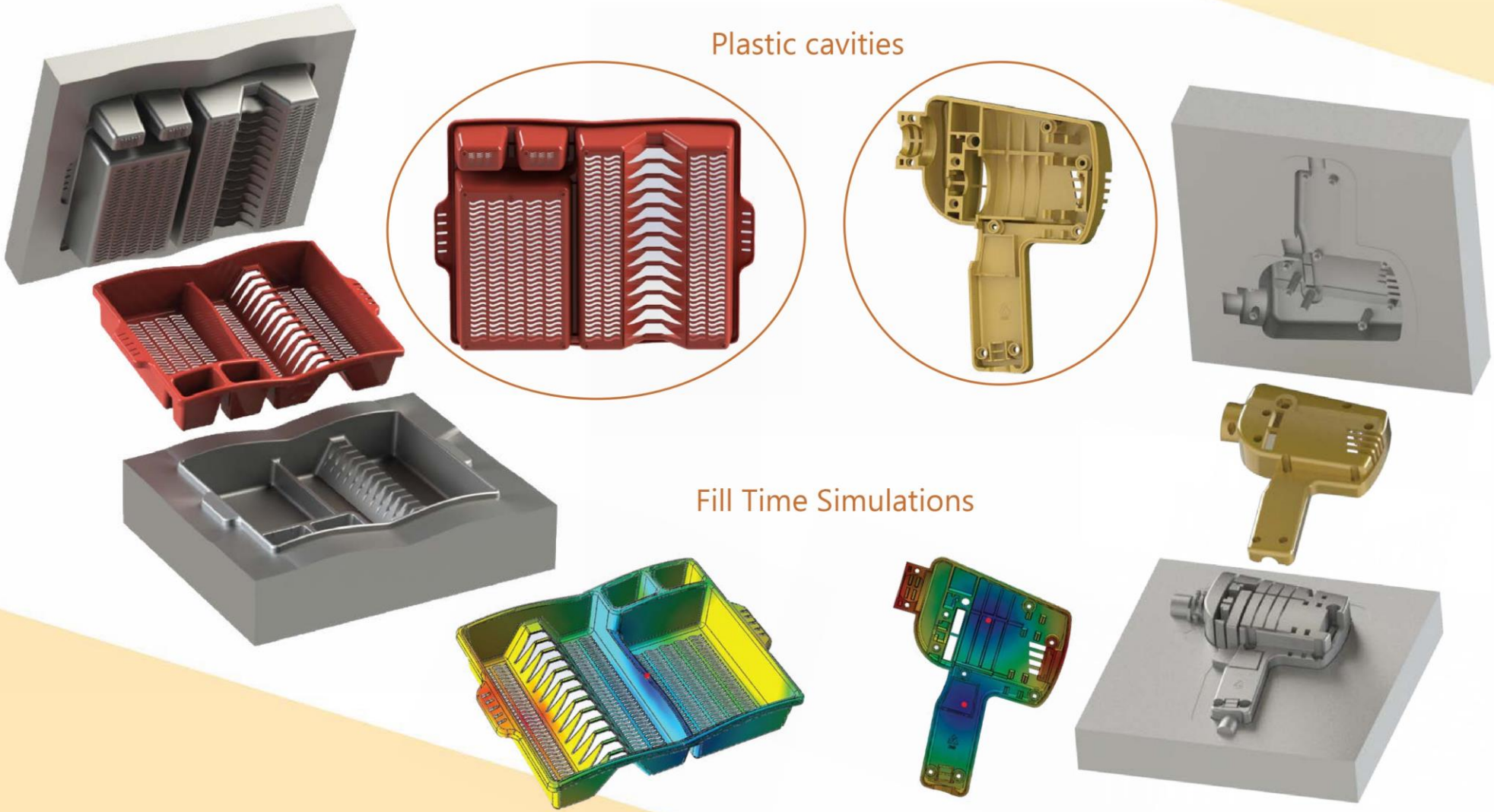
Предметен наставник: Вонр. Проф. д-р Иле Мирчески
Соработник: Асс. м-р Благоја Несторовски

Проект бр. 1:
Изработка на калапно гнездо

CORE AND CAVITY DESIGN

Plastic Injection Molding

Plastic cavities



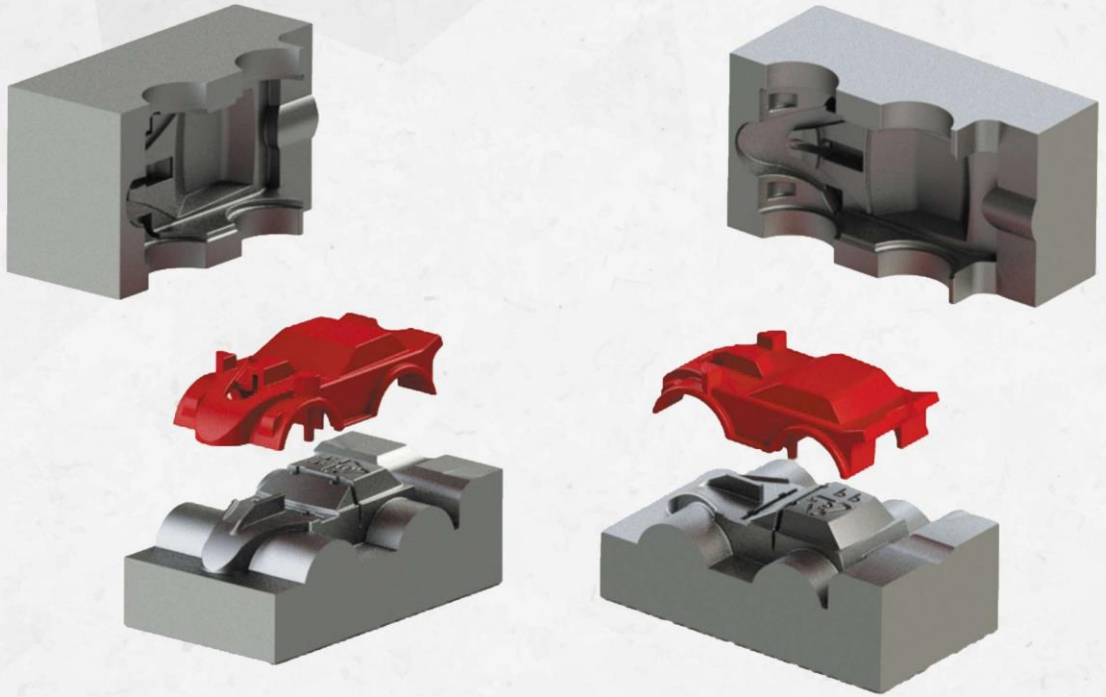
Fill Time Simulations

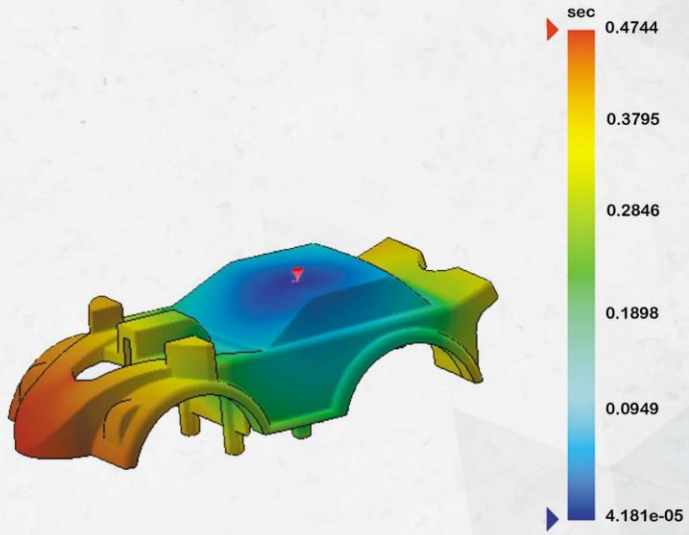
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Radmila Misheva 2635, Ana Shopovska 2646
Course: Design with Plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

CAVITY AND CORE

Plastic mold design



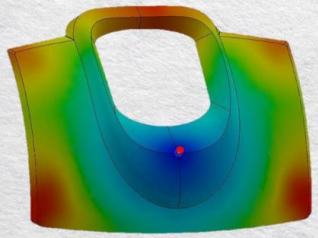


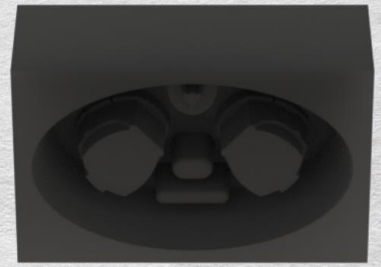
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Sara Shaleva
Course: Design with Plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

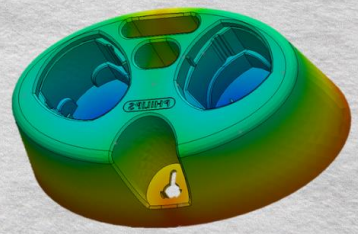
CORE AND CAVITY

MOLD DESIGN





Electric Toothbrush Holder



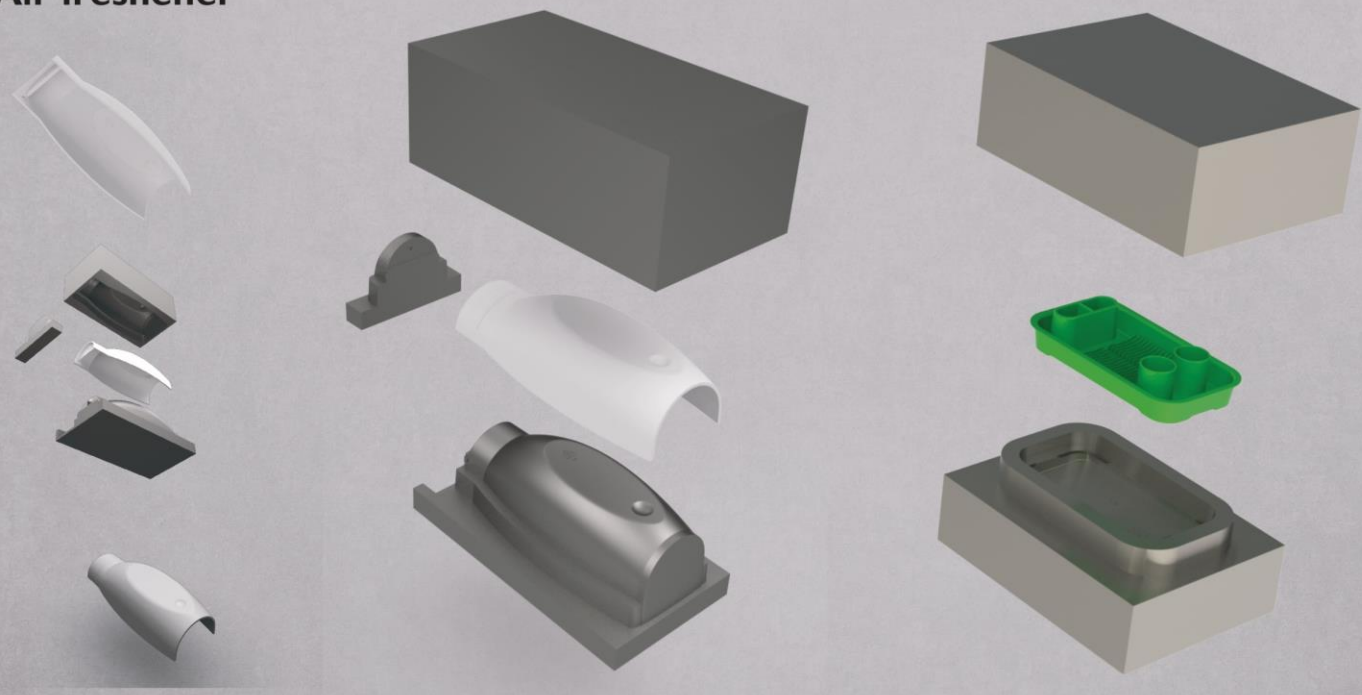
Cordless Phone Stand

"Ss. CYRIL AND METHODIUS" UNIVERSITY
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

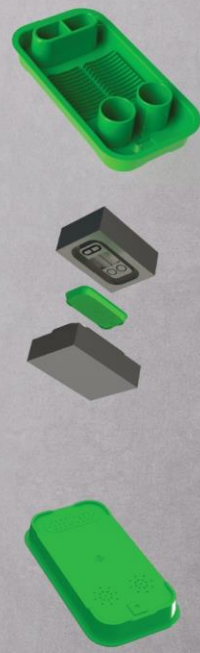
Students: Marina Klimoska 2650 and Nevenka Spasovska 2639
Course: Design with plastics
Leader: Prof. Ile Mircheski, PhD
School year: 2021/2022

CORE & CAVITY
Mold Design

Air freshener



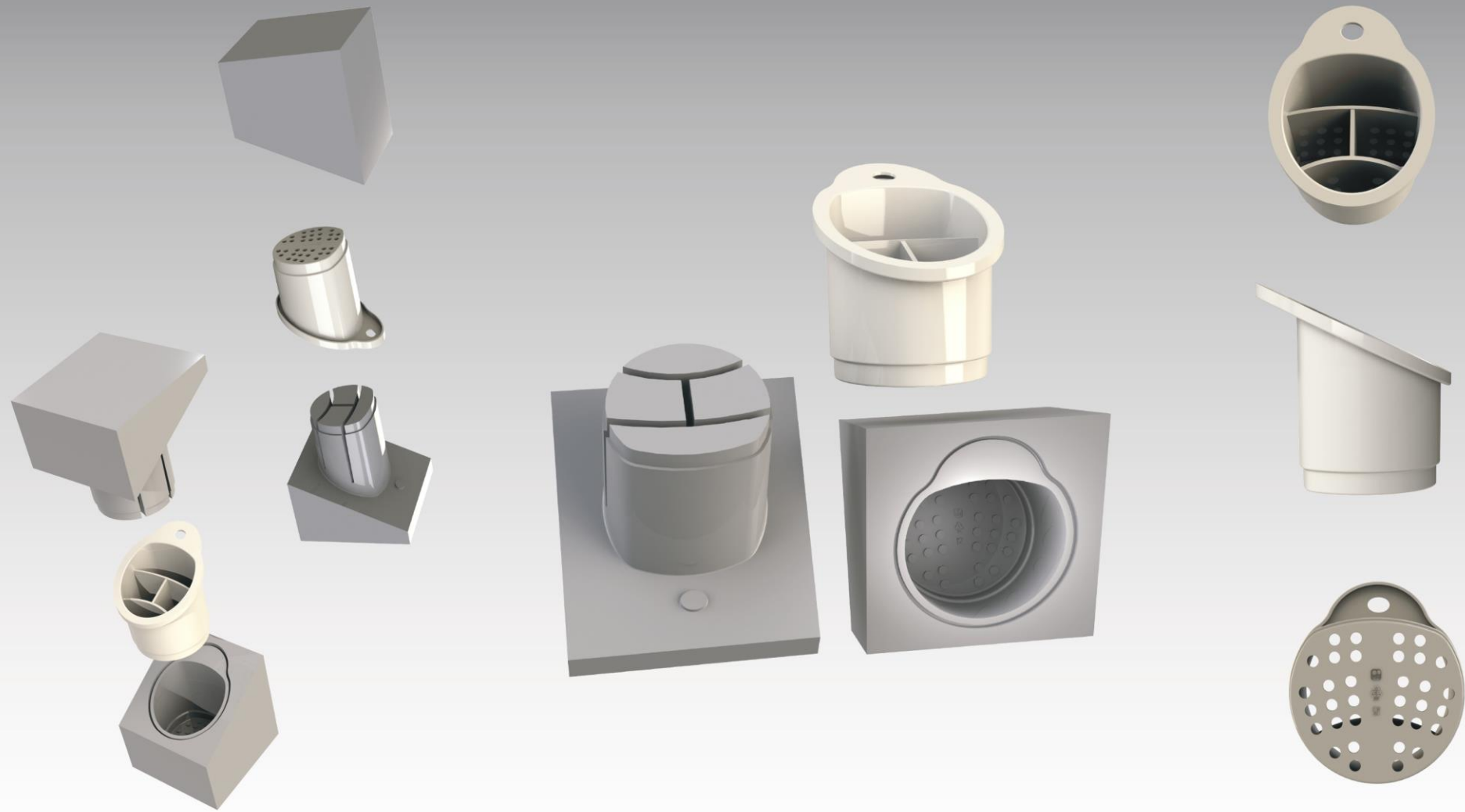
Dish Rack



"Ss. Cyril and Methodius" University
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Students: Kristijan Pandev 1620
Milan Veljanov 1137
Course: Design with Plastics
Leader: Prof. D-r Ile Mircheski
School year: 2021/2022

CORE AND CAVITY MOLD DESIGN

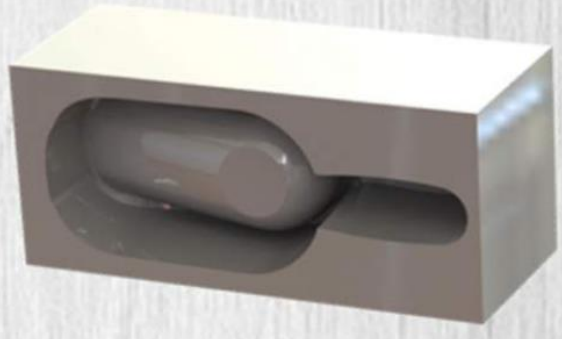


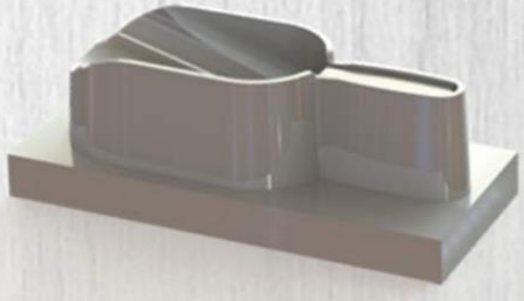
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Lazar Avramovski
Course: Design with Plastics
Leader: Prof. Dr. Ile Mirceski
School Year: 2021/2022

Core and Cavity

Shovel – Toy for kids

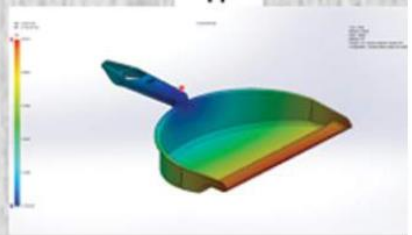




02
PE-HD

Shovel for garbage

5
PP

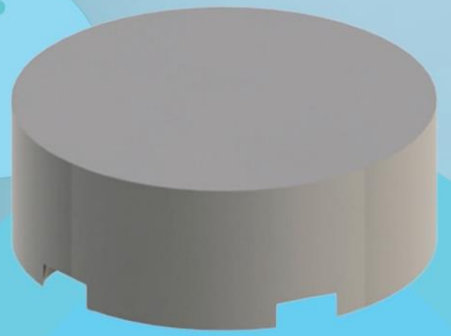


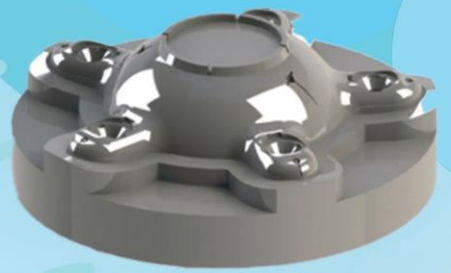
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Students:Stefan Dimitrovski and Marko Stojkovski
Course: Design with plastics
Leader: Prof. D-r Ile Mircheski
School year: 2021/2022

CORE AND CAVITY MOLD DESIGN

KIDS TOY





2
HDPE

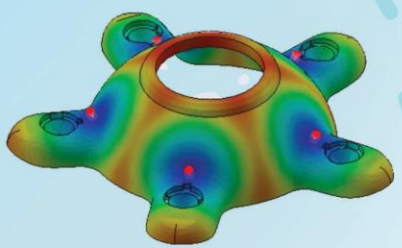


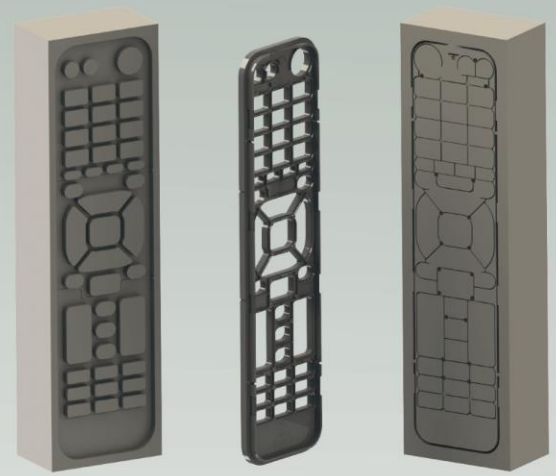
image of simulation of injection molding

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Viktorija Nikolovska
Course: Plastics Product Design
Leader: Prof. Ile Mircheski, PhD
School Year: 2021/2022

CORE AND CAVITY MOLD DESIGN

Plastic Injection Molding



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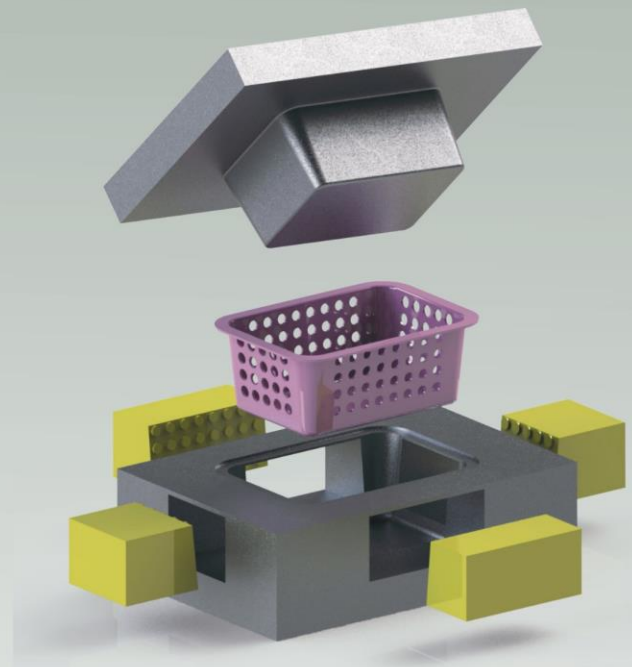
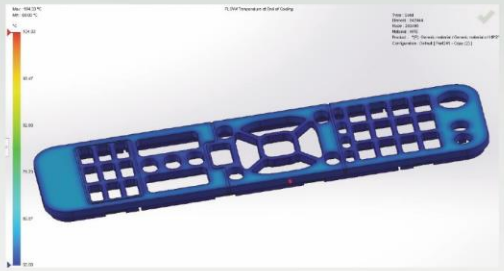
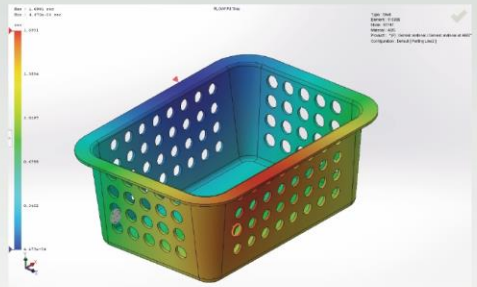


09
ABS

Temperature at End of Cooling 104.33°C



Fill Time 1.69 sec



Cooling Time 18.5 sec

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Egnineering
Industrial Design, Ergonomics and Applications Lab

Students: Elena Zdraveska 2641
Nikolina Boda 2655
Ivana Ilievska 2665
Course: Design with Plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

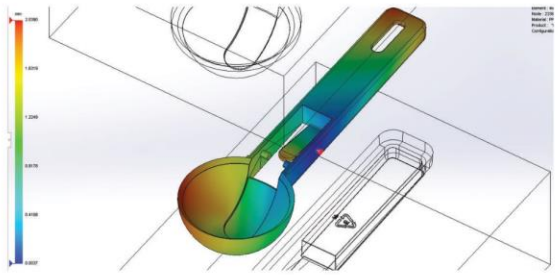
CORE & CAVITY DESIGN

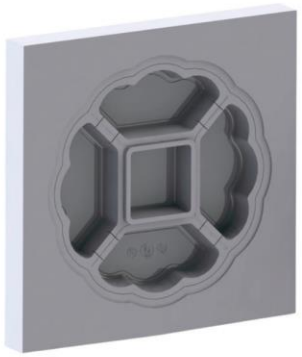
PLASTIC INJECTION MOLDING

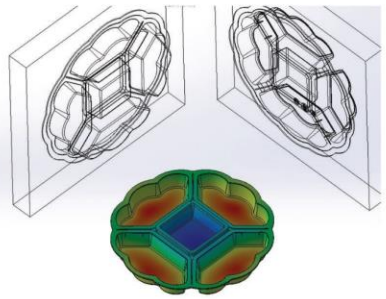
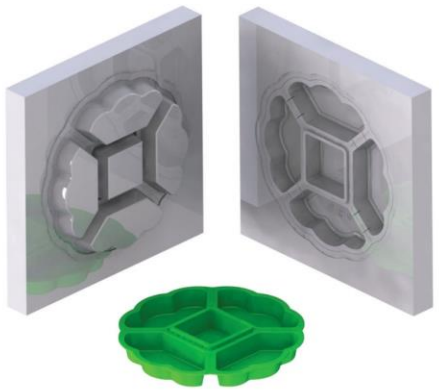










ICE CREAM SPOON

PP

SNACK BOWL

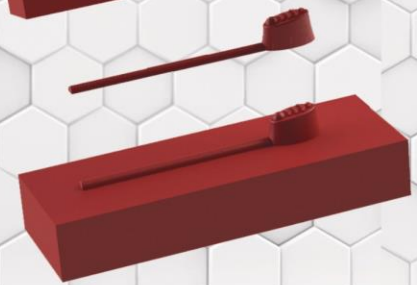
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Vladimir Burneski 2667
Aleksandar Trendov 2657
Course: Design with plastics
Leader: Prof. Ile Mircheski, PhD
School Year: 2021/2022

CORE AND CAVITY MOLD DESIGN

LIGHT HOLDERS

POWDER SCOOP



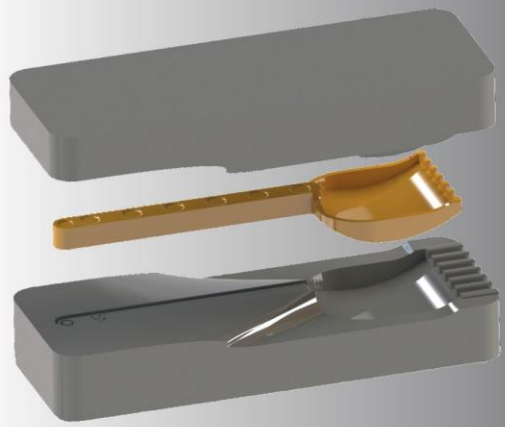
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Mihail Trojachanec
Dorotea Popova
Course: Design with Plastics
Leader: Prof. D-r Ile Mircheski
School Year: 2021/2022

CORE AND CAVITY DESING

BLADE FOR APPLE

SHOVEL FOR KIDS



"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

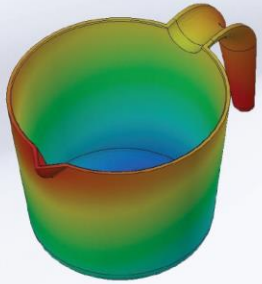
Student: Angela Tomevska, Maja Bojkovska
Course: Design with Plastic
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

CORE AND CAVITY

MEASURING CUP

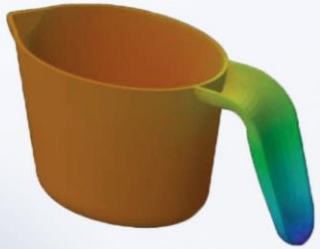
MODELS

MEASURING CUP



INJECT TIME SIMULATION

PRESSURE AT END OF FALL SIMULATIOB



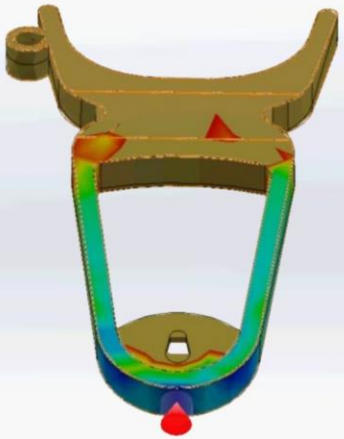
"Ss. Cyril and Methodius" University in Skopje Faculty of Mechanical Engineering Industrial Design, Ergonomics and Applications Lab

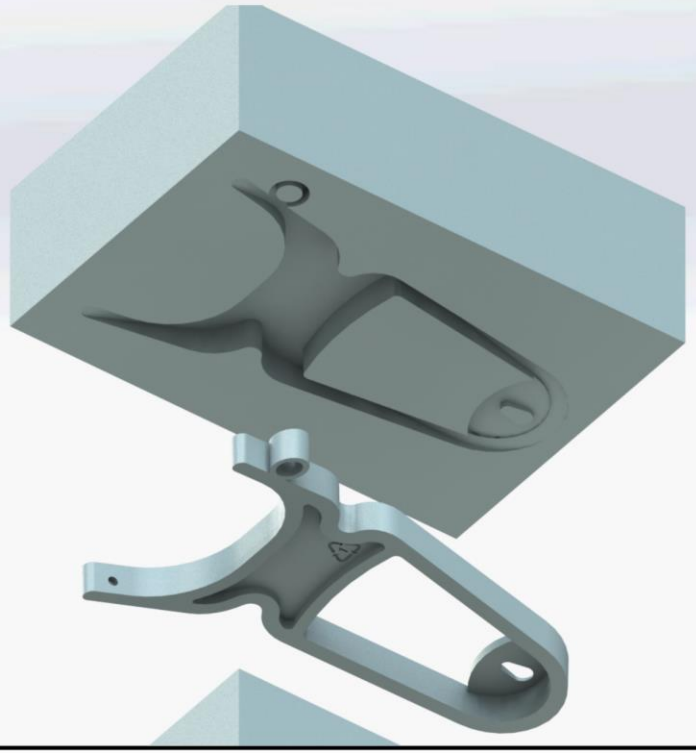
FACULTY OF MECHANICAL ENGINEERING

IDEA LAB

Students: Anastazija Kolevska 2648
Filip Shutarov 2637
Course: Plastic Product Design
Leader: Prof. Ile Mircheski
School Year: 2021/2022

CORE AND CRAVITY MOLD DESIGN

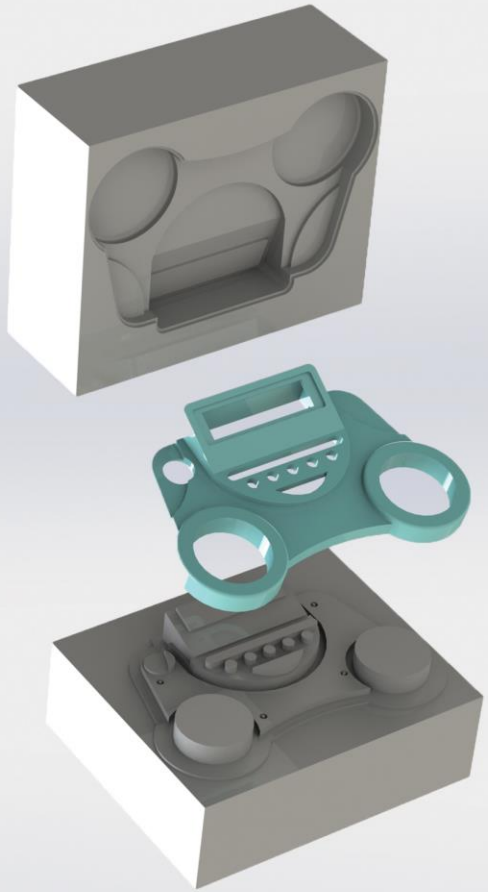


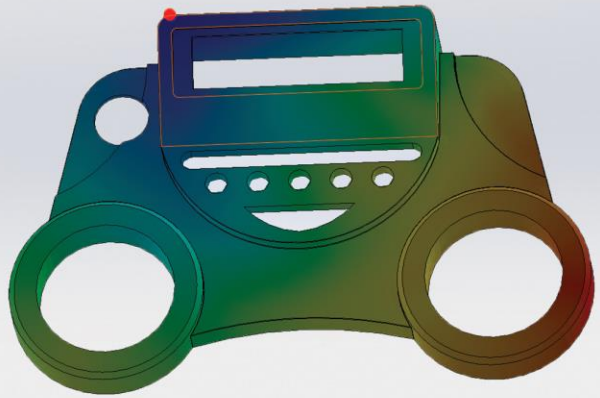


"Ss. Cyril and Methodius" University
Faculty of Mechanical engineering
Industrial design, Ergonomics and Applications Lab

Students: Petar Maljanovski 2409
Course: Plastic product design
Leader: Prof. Ile Mircheski
School year: 2021/2022

CORE AND CAVITY MOLD DESIGN
RADIO/ALARM



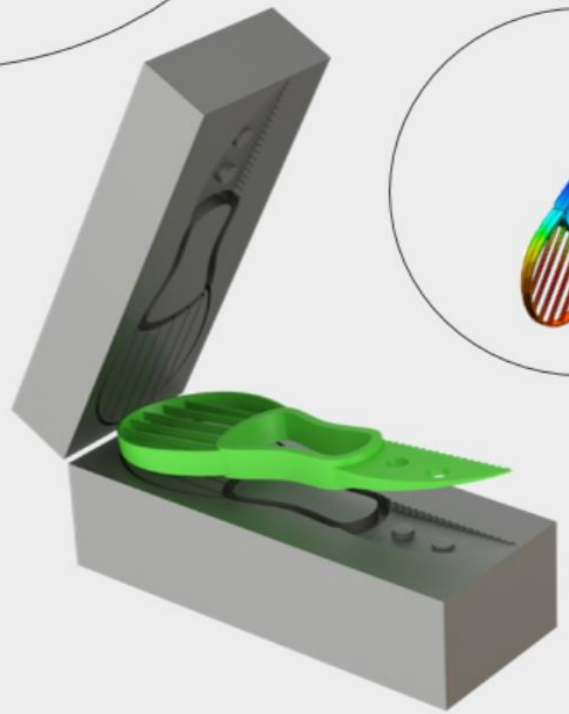


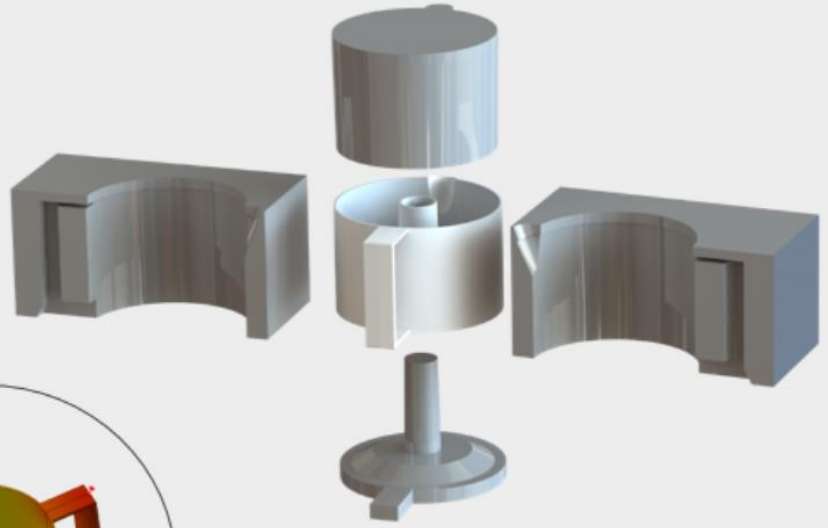
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

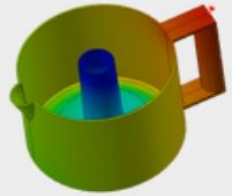
Student: Igor Milev 2209
Course: Plastic Product Design
Leader: Prof. Ile Mircheski
School Year: 2021/2022

Core and Cavity Design

Plastic Injection Molding







2 HDPE

Avocado Knife

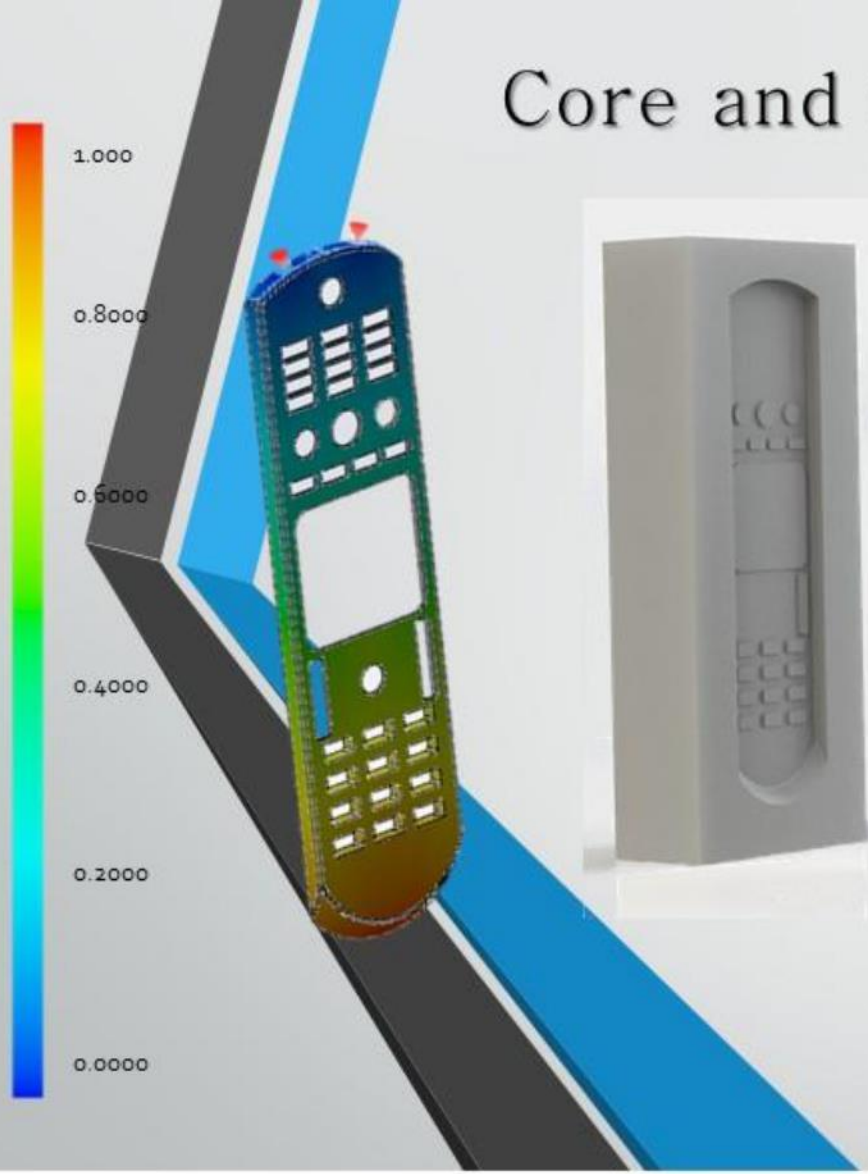
Coffee Jug

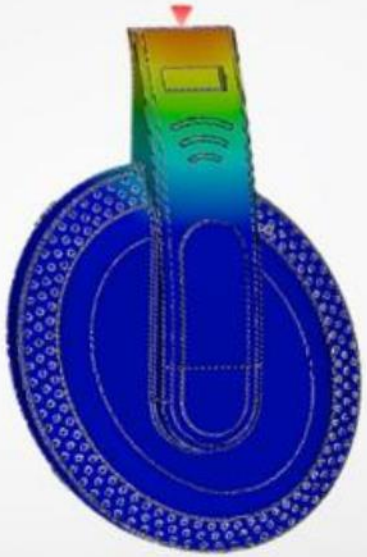
9 ABS

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Students: Nadija Bekjiragikj 2638
Zoran Nikolov 2647
Course: Plastic Product Design
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

Core and Cavity mold design



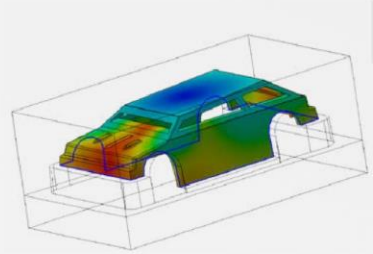


"SS. Cyril and Methodius" University
Faculty of Mechanical Engineering Industrial Design,
Ergonomics and Application Lab

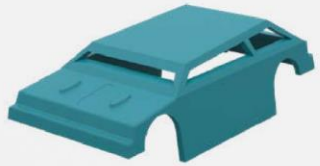
Students: Zhivko Duev IND 2401
Filip Nikolovski IND 2420
Leader: Prof. Ile Mircheski
School year: 2021/2022

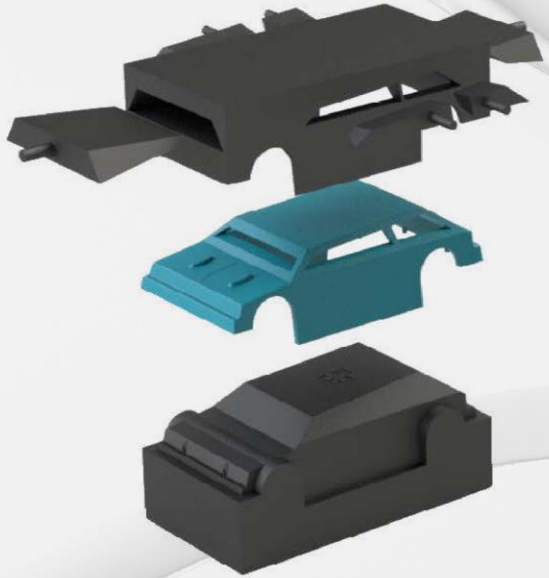
Core and cavity

INJECTION TIME SIMULATION

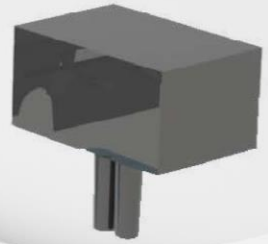


MODEL



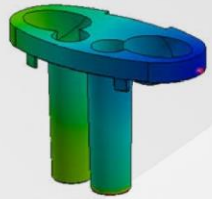


KIDS TOY CAR SHELL



AIRPODS CASE PART

INJECTION TIME SIMULATION

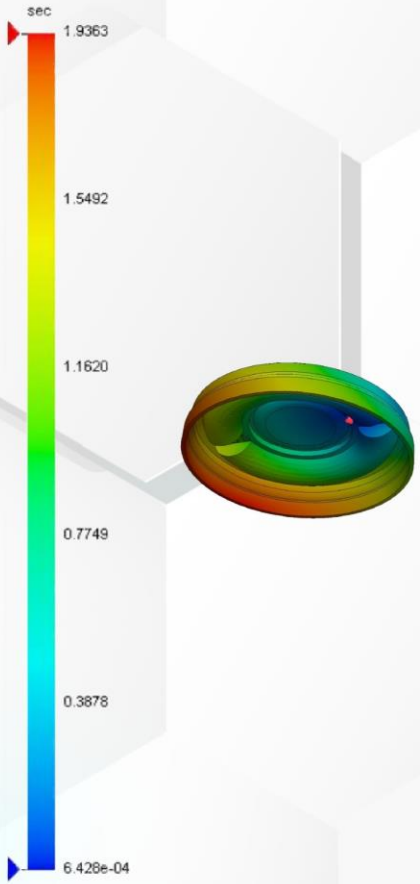


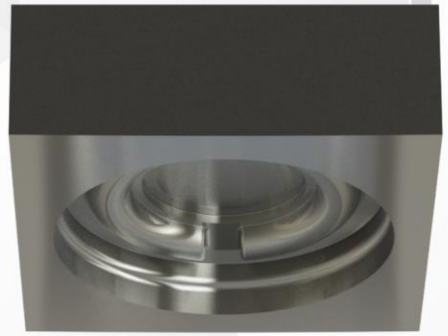
MODEL

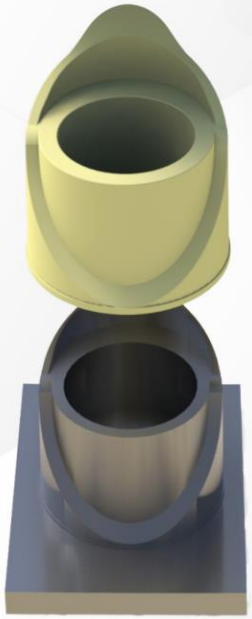
"Ss. Cyril and Methodius" University
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

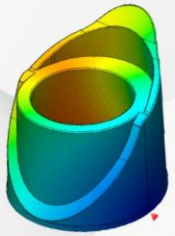
Students: Gjorgji Stevkovski 2645
Mihaela Trajkovska 2664
Course: Plastic product design
Leader: Prof. Dr. Ile Mircheski
School year 2021/2022

CORE AND CAVITY MOLD DESIGN







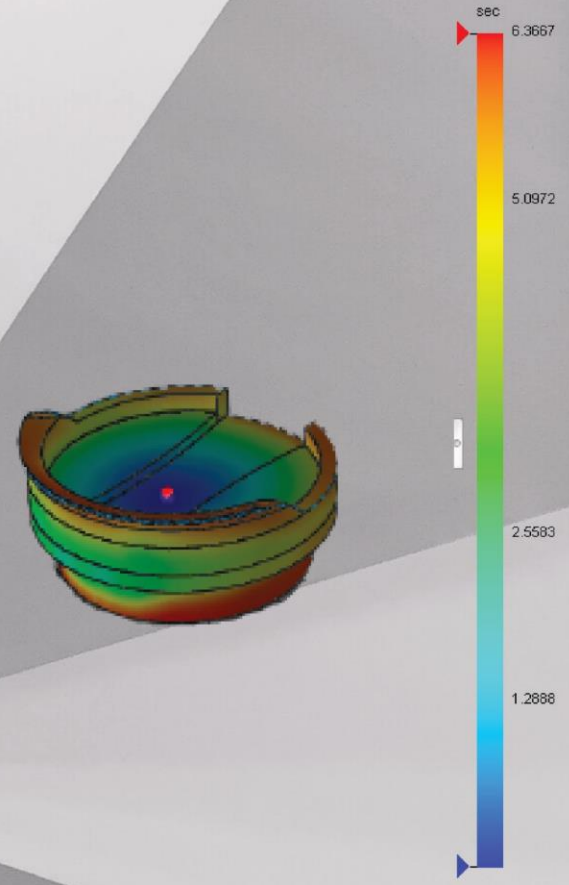


"Ss. Cyril and Methodius" University
Faculty of Mechanical engineering
Industrial design, Ergonomics and Applications Lab

Students: Filip Novakovski 2671
Ana-Marija Andonova 2414
Course: Plastic product design
Leader: Prof. Ile Mircheski
School year: 2021/2022

CORE AND CAVITY MOLD DESIGN

Bottle Cap for Coffee Mug



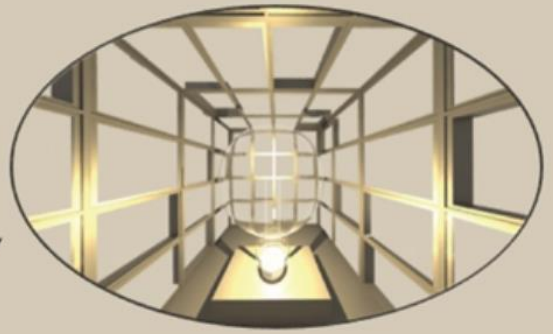
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

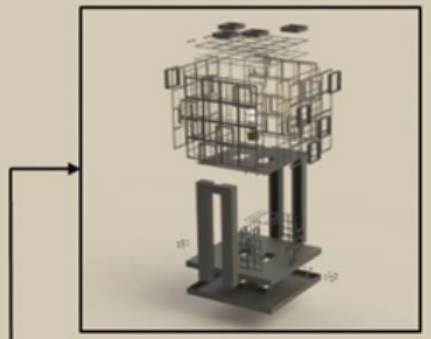
Student: David Davitkov 2636
Course: Plastic product design
Leader: Prof. Ile Mircheski
School Year: 2021/22

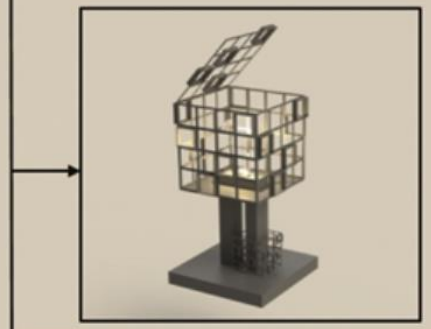
Проект бр. 2:
Општа тема

Modular Lamp

See through the future







- Warm ambient
- Asymmetric futuristic design
- 98% recyclable plastic

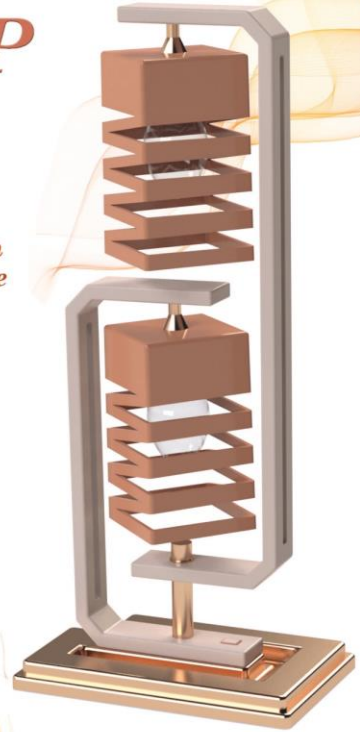
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

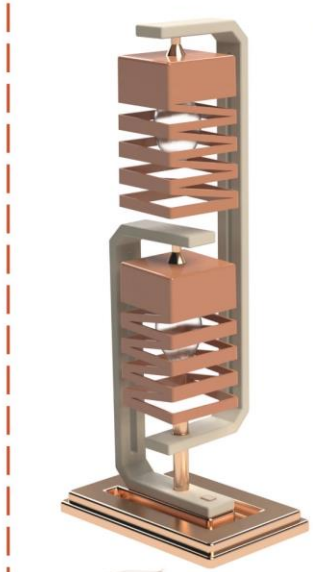
Student: Nadija Bekjiragikj
Course: Plastic Product Design
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

DESK LAMP

simple, elegant, unique

This lamp has unique, soft and elegant design that can make our home and atmosphere more pleasant





Exploded view

The longer handle of the lamp can rotate around fastening axis and that can give us new, different, and more interesting design of the lamp

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

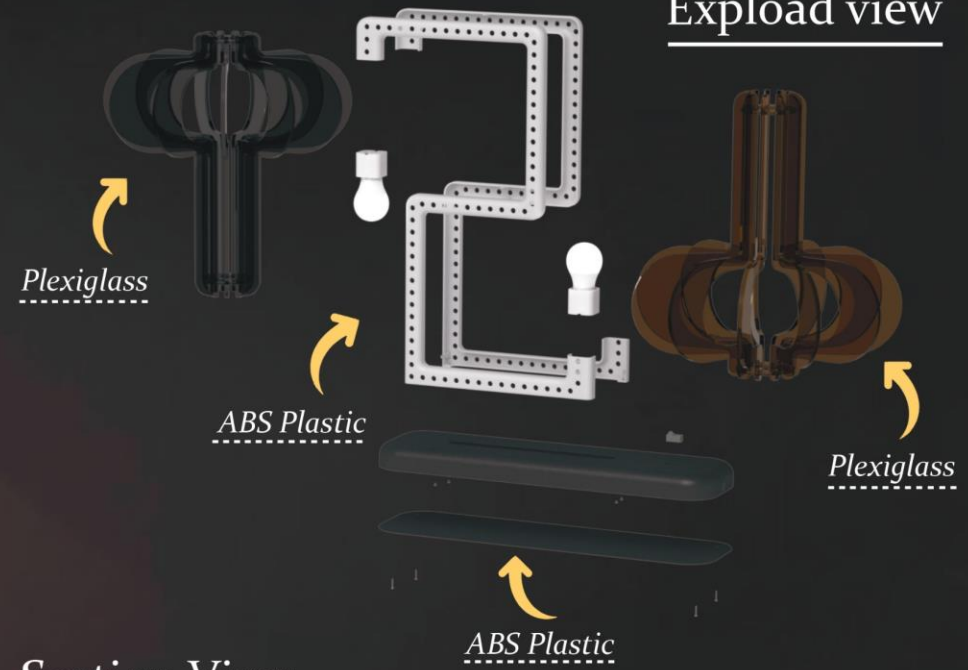
Student: Radmila Misheva2635
Course: Design with Plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

Table Lamp Topology

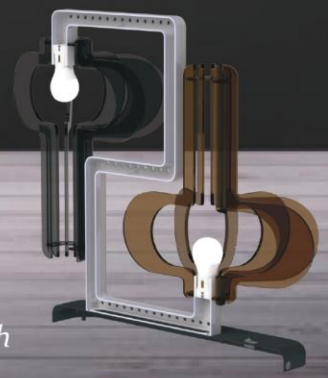
Light Up The Darkness

You can easily control this table lamp from your favorite armchair which provides a funcional light.

Expload view



Section View



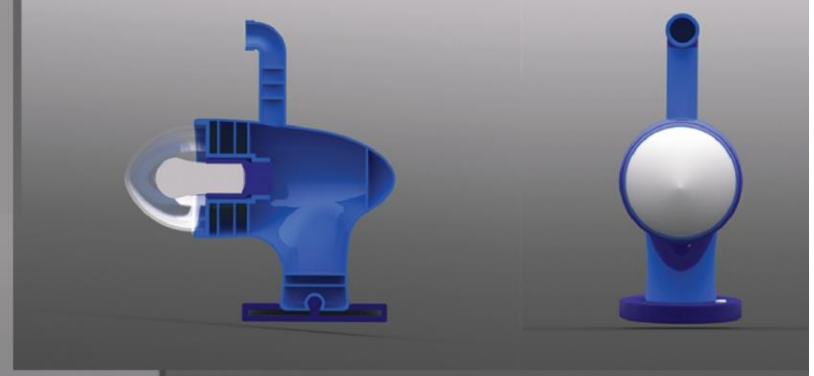
Bottom View

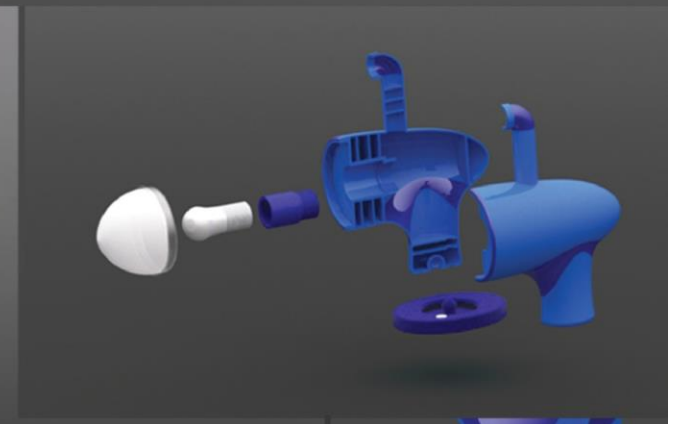
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

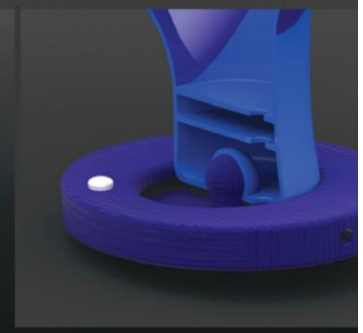
Student: Milan Veljanov 1137
Course: Design with Plastics
Leader: Prof. Dr. Ile Mirceski
School Year: 2021/2022

Submarine Lamp

Nautilus





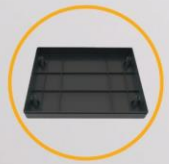


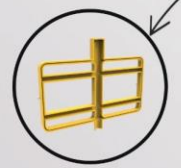
- 360° ROTATION
- MODERN DESIGN
- PLASTIC CORE
- WOODEN BASE

Ss. Cyril and Methodius University in Skopje
Faculty of Mechanical Engineering
Industrial Design. Ergonomic and Applications Lab

Student: Dorotea Popova
Course: Plastic Product Design
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

DESK LAMP





Plastic Parts

Used ways of joining:

- *Welding joint*
- *Gluing joint*
- *Connection with metal insert*
- *Screw and nut connection*
- *Connection with self-tapping screws*

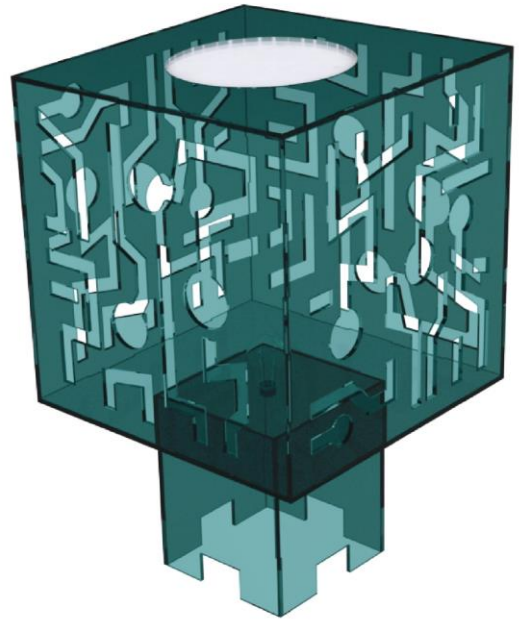
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Vladimir Burneski 2667
Course: Plastic Products Design
Leader: Prof. D-r. Ile Mircheski
School Year: 2021/2022

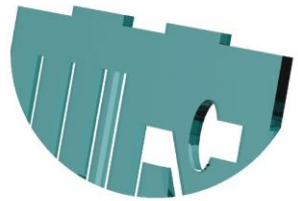
FUTURA

MODULAR FUTURISTIC LAMP

LIGHT EFFECT



EXPLODED VIEW



PUZZLE CONSTRUCTION

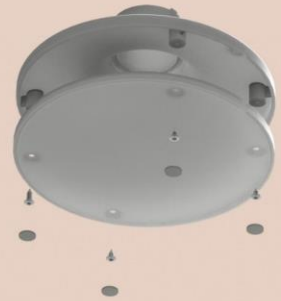
LASER CUT
BOX DESIGN
TRANSPARENT

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Zoran Nikolov 2647
Course: Plastic Product Design
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/ 2022

TABLE LAMP

LIGHT Arc



Simple elegant lamp that brightens your desk.
Minimalistic design which makes the lamp
suitable for any room.
Has the function as a lamp and
serves as a decoration too.
Inspired by the Ball Chair by Eero Aarnio

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

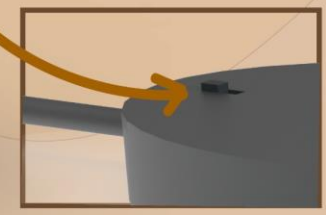
Student: Sara Shaleva
Course: Design with Plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

Lalita

- Elegant design
- Recyclable
- LED light bulb

Stylish yet practical, this lamp can brighten up any work or living space

On/Off button



"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Tamara Velichkovska 2649
Course: Design with plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

THE "NEW MOON" LAMP

The design of the lamp is inspired by the shape of the new moon.
It is made of several plastic molds, that are connceted by tapered socket joint.
On the bottom it has a touch-sensitive button that can dim or brighten the light.
The color is chosen and inspired by the color of the moon.

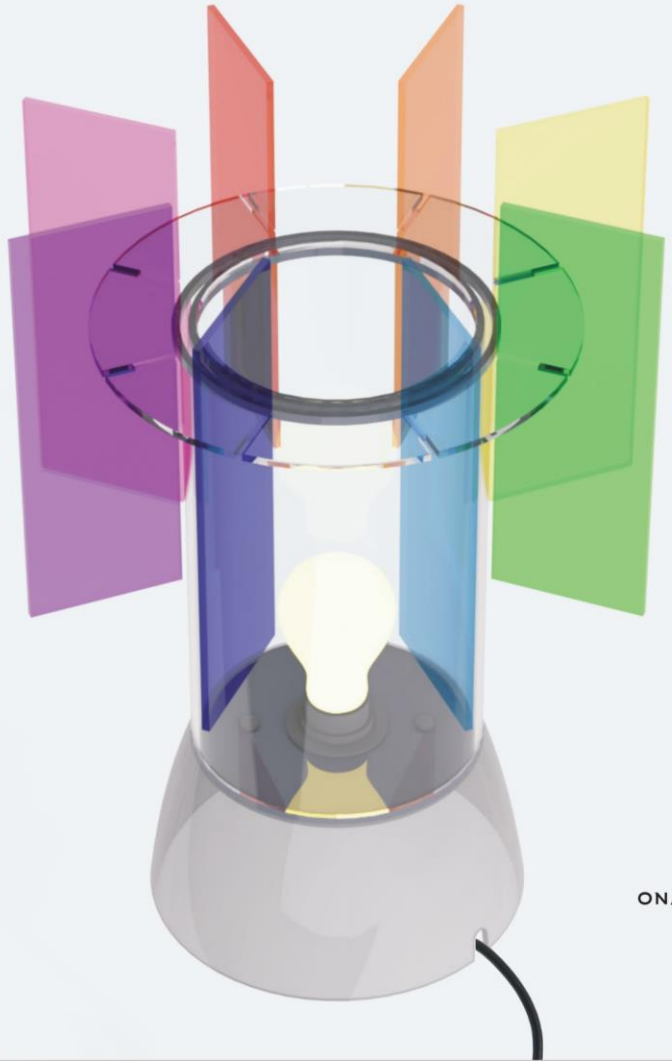
"Ss. Cyril and Methodius" University
Faculty of Mechanical engineering
Industrial design, Ergonomics and Applications Lab

Students: Filip Novakovski 2671
Course: Plastic product design
Leader: Prof. Ile Mircheski
School year: 2021/2022

RAINBOW LAMP

LIGHTS UP THE SPACE WITH ITS SOFT PASTEL RECTANGULAR SHAPES

MADE OF NON-TOXIG ACRYLIC SHEETS USING LASER CUTTING TECHNOLOGY



THE EIGHT COLORFUL PIECES
CAN BE MANUALLY SET THE WAY YOU LIKE IT

ON/OFF SWITCH LOCATED ON THE CORD

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Egnineering
Industrial Design, Ergonomics and Applications Lab

Student: Elena Zdraveska 2641
Course: Design with Plastics
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

Retro Shine

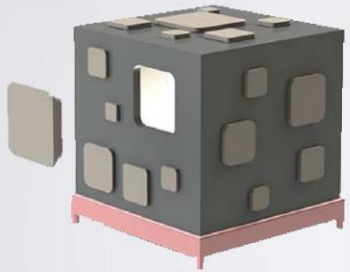
A design isnpired by everyday household items,
its uniknes is meant to convey a very retro look
while still being able to function in the modern minimalistic world.

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

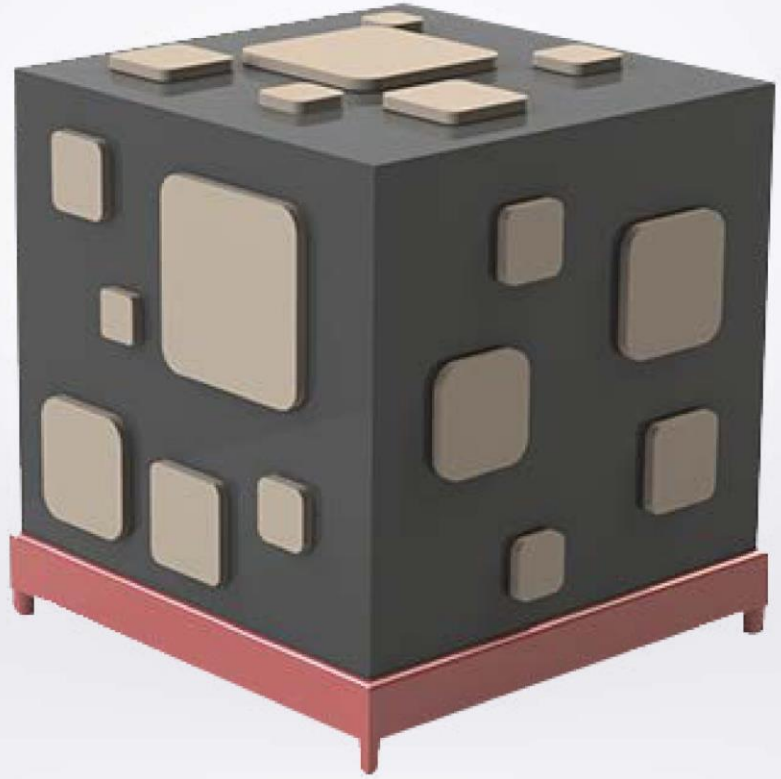
Student: Lazar Avramovski
Course: Design with Plastics
Leader: Prof. Dr. Ile Mirceski
School Year: 2021/2022

CUBUS

MODERN LAMP MADE OF PLASTIC AND STAINLESS STEEL

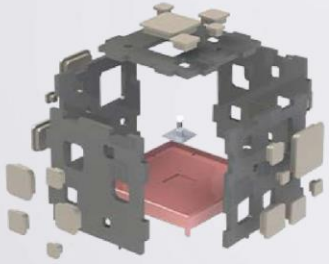


WHEN YOU OPEN THE FIRST ONE THE LIGHT AUTOMATICLY TURNS ON,

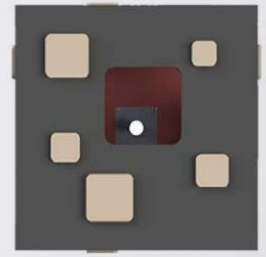


THE PLASTIC CAPS WORK AS A LIGHT SWITCH. YOU CAN ADJUST THE BRIGHNESS BY OPENING AS MANY CAPS AS YOU DESIRE.

ONCE ALL THE CAPS ARE CLOSED THE LIGHT AUTOMATICLY TURNS OFF.



EXPLODED VIEW



TOP VIEW

"Ss. Cyril and Methodius" University
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student:
Mihaela Trajkovska 2664
Course: Plastic product design
Leader: Prof. Dr. Ile Mircheski
School year 2021/2022

Flower LAMP

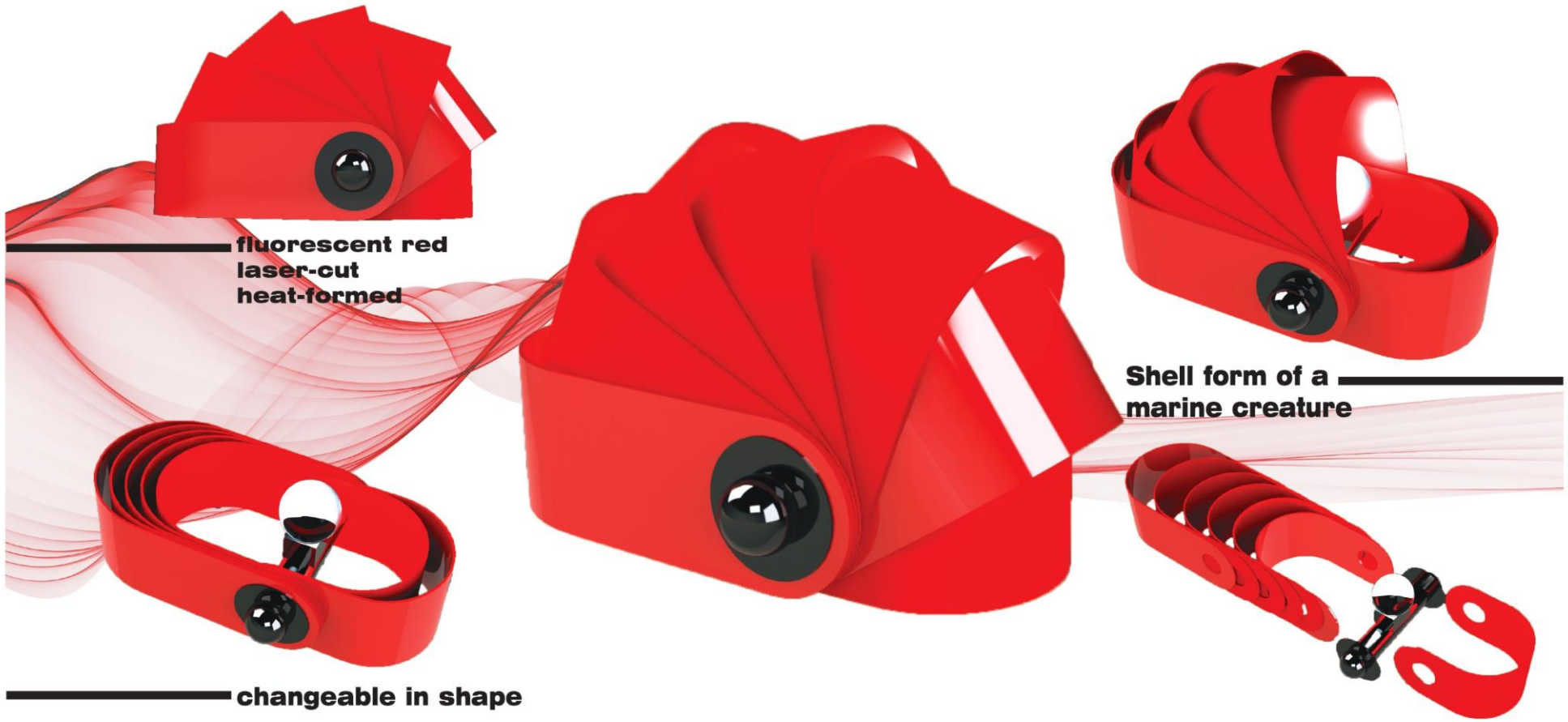
"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

SCAN ME

Student: Marina Klimoska 2650
Course: Design with plastics
Leader: Prof. Ile Mirceski, PhD
School year: 2021/2022

Gherpe Lamp

Superstudio inspired



"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Anastazija Kolevska 2648
Course: Plastic product design
Leader: Prof. Dr. Ile Mirceski
School Year: 2021/2022

The red hook

Inspired by the hook shape, this product is designed from multiple plastic molds. Generally the two main parts are connected by joints that hold the all together.

Right side view

Front side view

The main color is red, beacuse it is inspired by its power and the way it attracts people to always look at it. The LED light is the perfect combination for a better ambient in the room.

Modern & Minimalistic

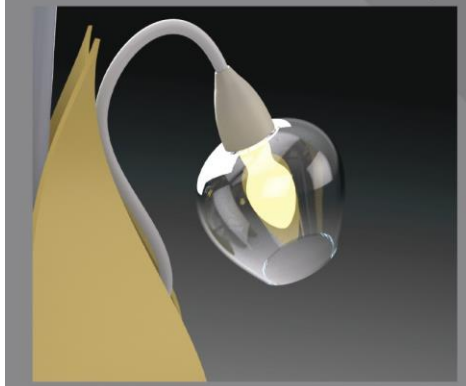
Exploded-view

"SS. Cyril and Methodius" University
Faculty of Mechanical engineering
Industrial design, Ergonomics and Applications Lab

Student: Ana-Marija Andonova 2414
Course: Plastic product design
Leader: Prof. Ile Mircheski
School year: 2021/2022

Three branches lamp

This lamp is suitable for
both desk and floor mounting.
It illuminates 360 degrees, including
illumination that can be adjusted by
moving the head up and down



"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

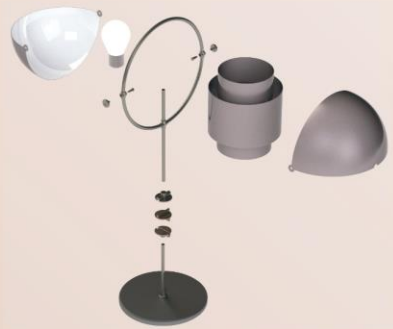
Student: Maja Bojkovska
Course: Design with Plastic
Leader: Prof. Dr. Ile Mircheski
School Year: 2021/2022

Bubble lamp

Using spherical opposing shades allows the creation of a dynamic multi light, shielding the eye from direct glare at all angles by adding a variety of light options within a room.

A clean design containing soft, organic shapes.

Built in mechanism that allows the user to place the lamp on a desired distance.

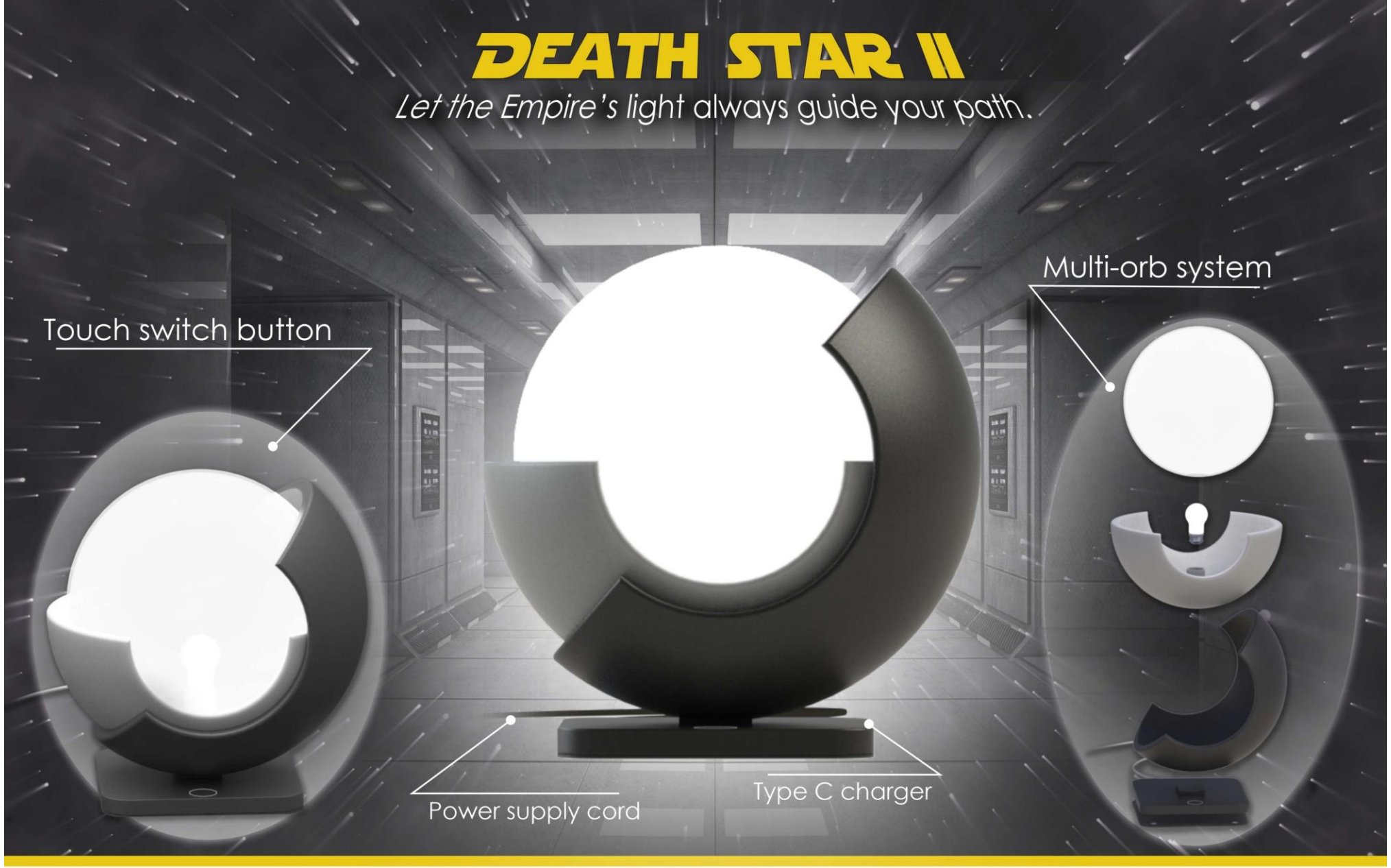


"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Marija Senkova
Course: Plastic Products
Leader: Prof. Ile Mirceski, PhD
School Year: 2021/2022

DEATH STAR II

Let the Empire's light always guide your path.



"Ss. Cyril and Methodius" University
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Angela Nedelkovska
Course: Plastic products
Leader: Von.prof. Ile Mircheski, PhD
School Year: 2021/22

DESIGN OF DESK LAMP

LUX 1

-ECO FRIENDLY-
LED LIGHT INSIDE

INNOVATIVE LIGHT TRANSFER
CASE WITH ACRYLIC RINGS

TOUCH SENSITIVE POWER BUTTON +
WIRELESS CHARGER BUILT INSIDE

"Ss. Cyril and Methodius" University in Skopje
Faculty of Mechanical Engineering
Industrial Design, Ergonomics and Applications Lab

Student: Marko Stojkovski
Course: Design with plastics
Leader: Prof. Ile Mircheski, PhD
School Year: 2021/2022