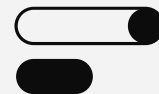
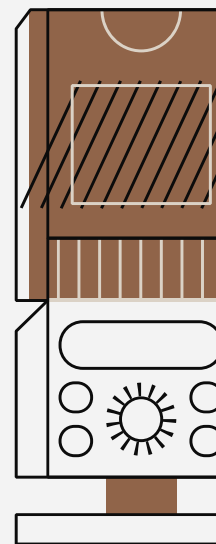
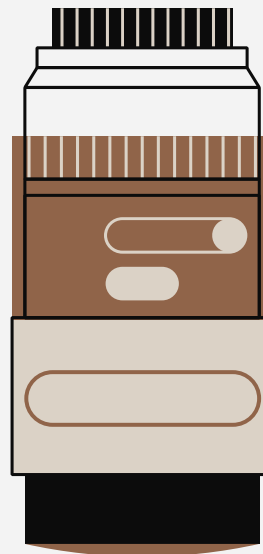
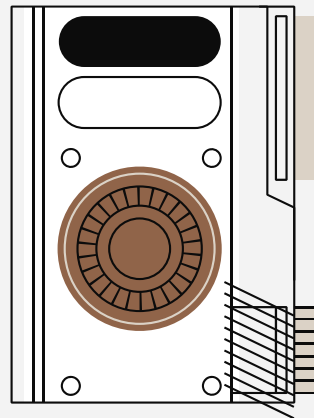
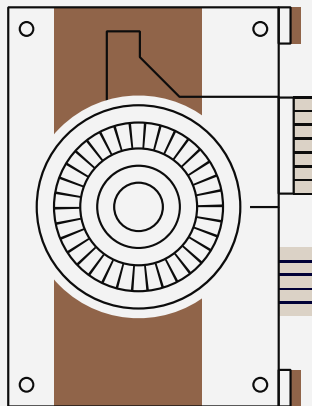
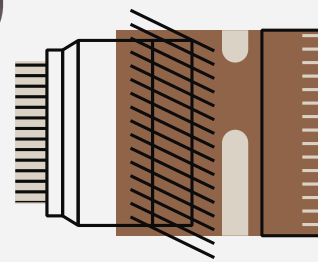
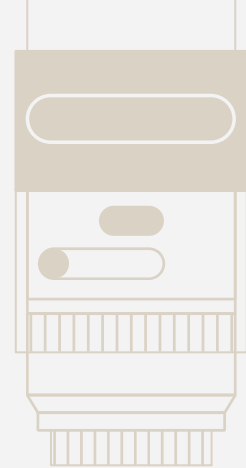




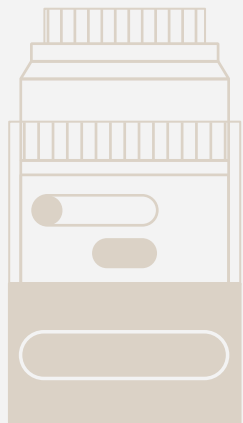
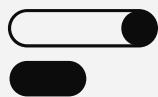
Digitális fotózás a fogászati gyakorlatban

Horváth Dániel
Semmelweis Egyetem
Orális Diagnosztikai Tanszék



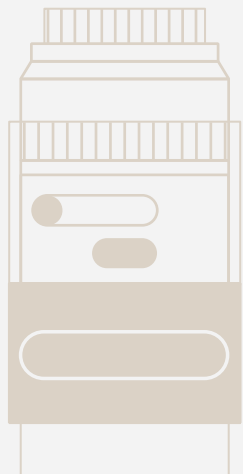
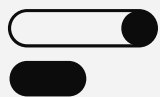
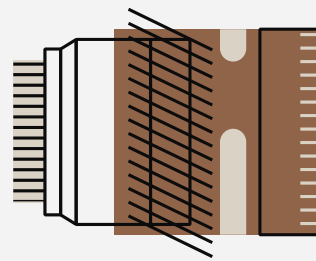
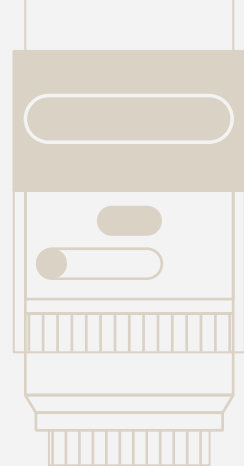


Saját fotó



Mi is a cél?

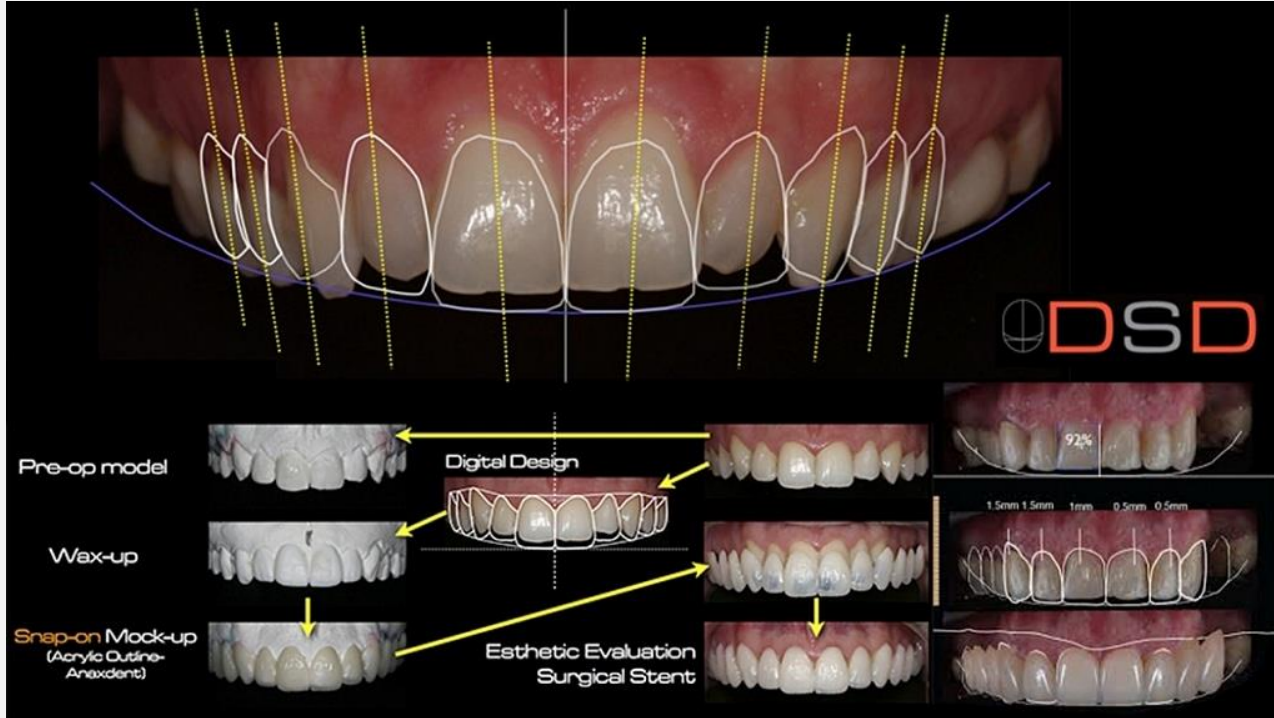
- **Dokumentáció**
- **Reprodukálhatóság**
- **Kommunikáció**
- **Smile Design**
- **Esetbemutató**
- **Marketing**

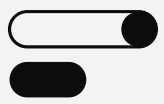


AACD American Academy of Cosmetic Dentistry

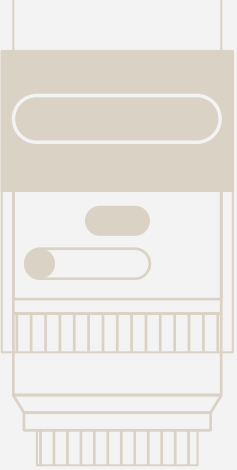


DSD – Digital Smile Design



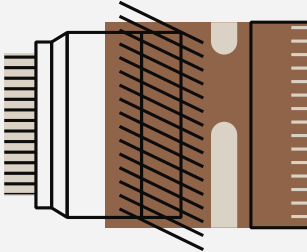
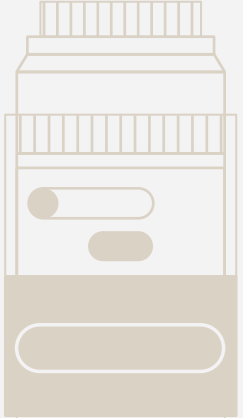


Mivel?

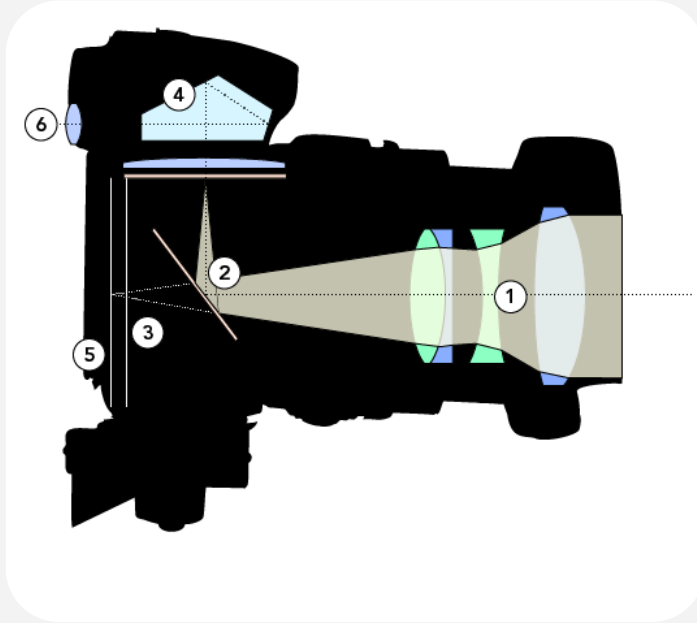


DSLR

MILC

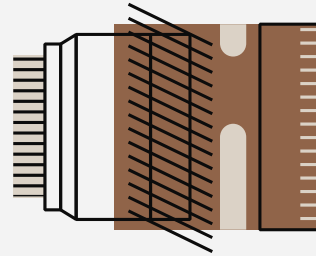
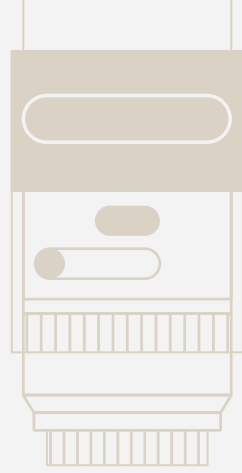


DSLR

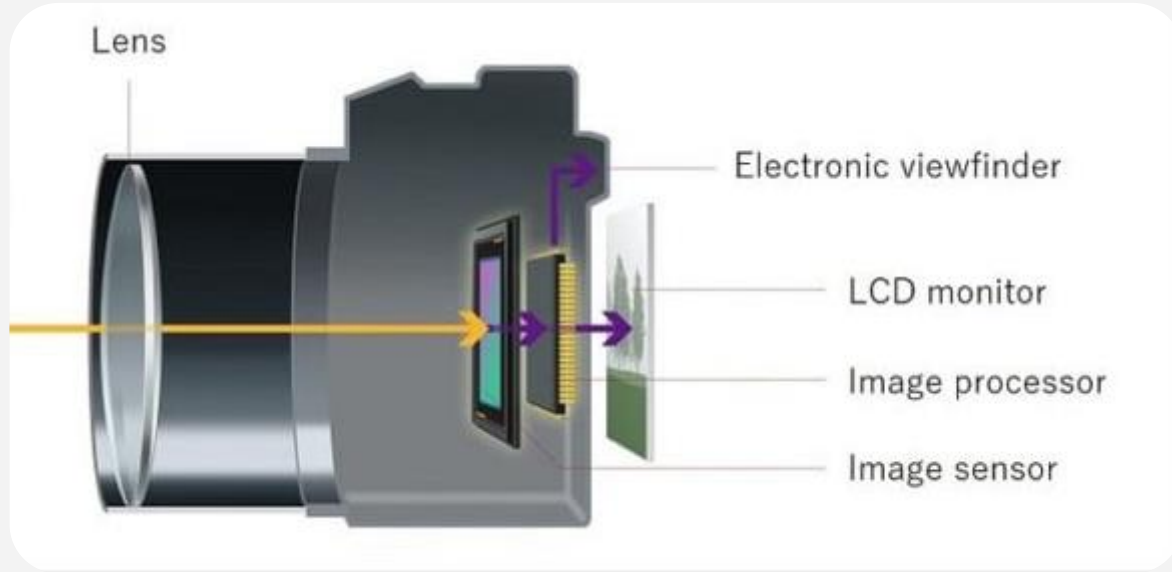


1. Lencserendszer (cserélhető objektív)
2. Tükör
3. Zár
4. Penteprizma
5. Szenzor
6. Optikai kereső

https://letstalkscience.ca/sites/default/files/styles/x_large/public/2019-10/parts_of_a_camera_0.png?itok=pK7dV9Q0



MILC



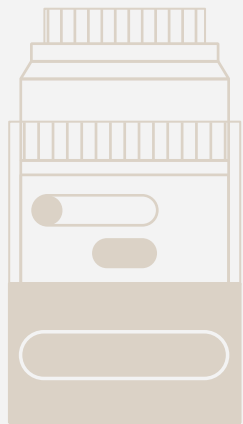
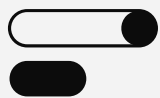
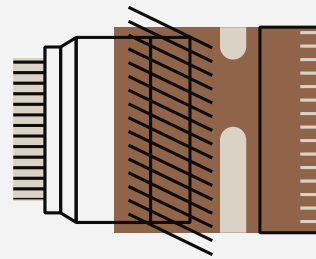
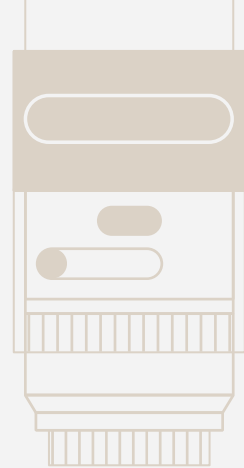
DSLR

+

- **Olcsóbb váz és objektív**
- **Szélesebb objektív választék**
- **Sok tapasztalat**

-

- **Nehéz >1kg**
- **Zajosabb kész**
- **Nehézkes a fókusz megtalálása**



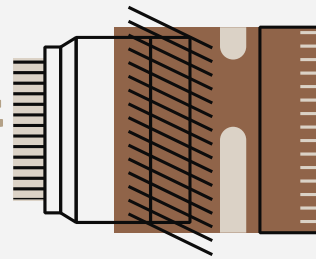
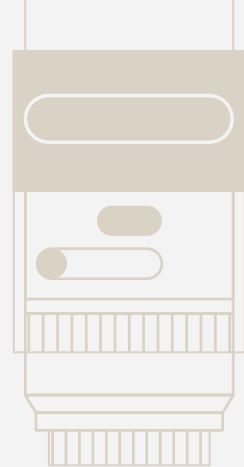
MILC

+

- **Jelentősen kisebb tömeg**
- **Digitális fókusz meghatározás**
- **Stabilabb kép**
- **Világosabb kép**

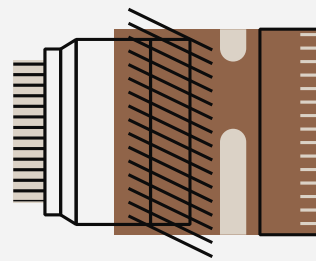
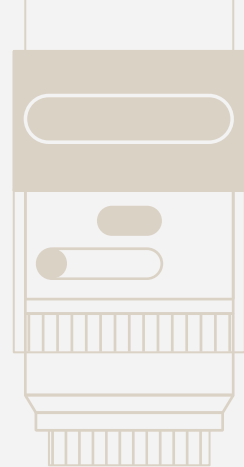
-

- **Kisebb objektív választék**
- **Drágább váz és objektív**
- **Kisebb tapasztalat**

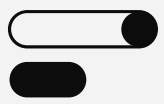


Objektív

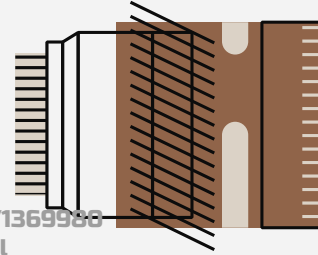
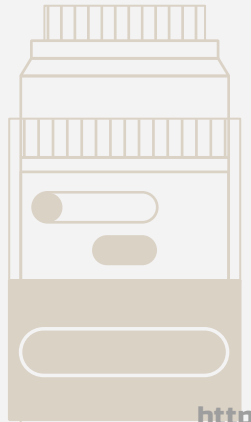
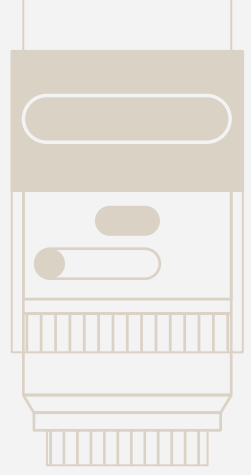
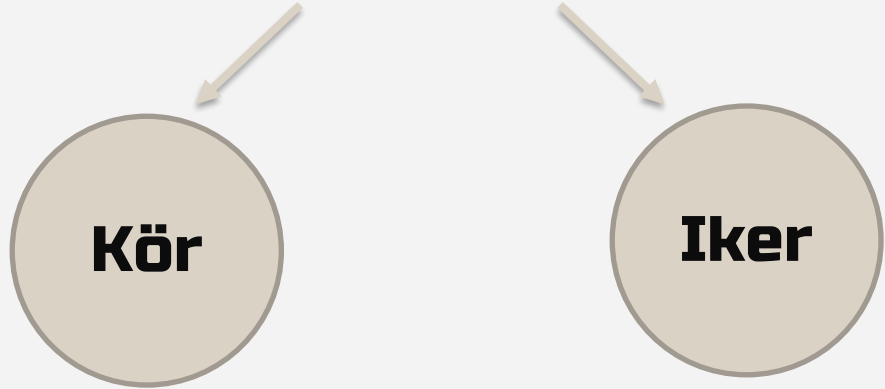
- **Macro objektív**
- **Gyújtótávolság:**
 - 100 mm
 - 105 mm



<https://www.arukereso.hu/fenykepezogep-objektiv-c4191/canon/ef-100mm-f-2-8l-is-usm-macro-ac3554b005aa-p41736356/>

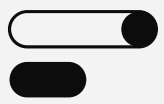


Vaku

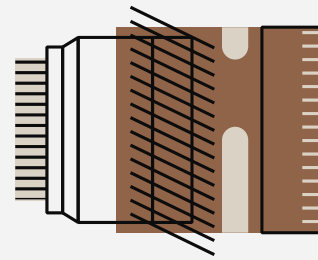
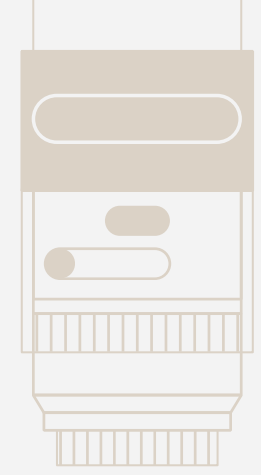
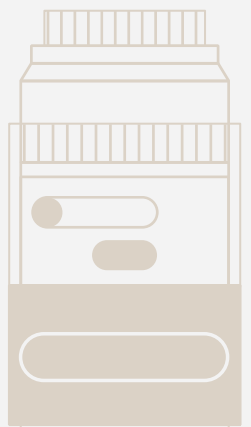
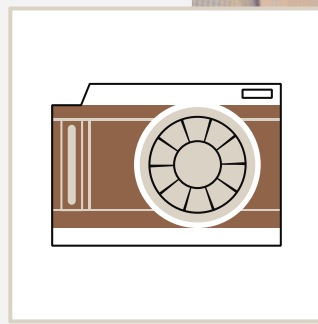


https://images-na.ssl-images-amazon.com/images/I/518kChT8g2S._AC_UL600_SR600,600_.jpg

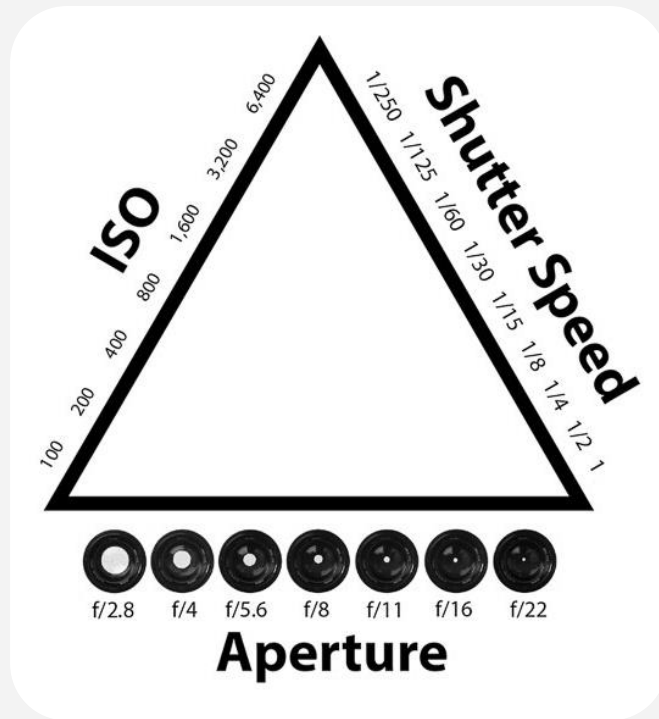
https://www.bhphotovideo.com/c/product/1369988-REG/yongnuo_yn_24ex_ttl_macro_ring.html



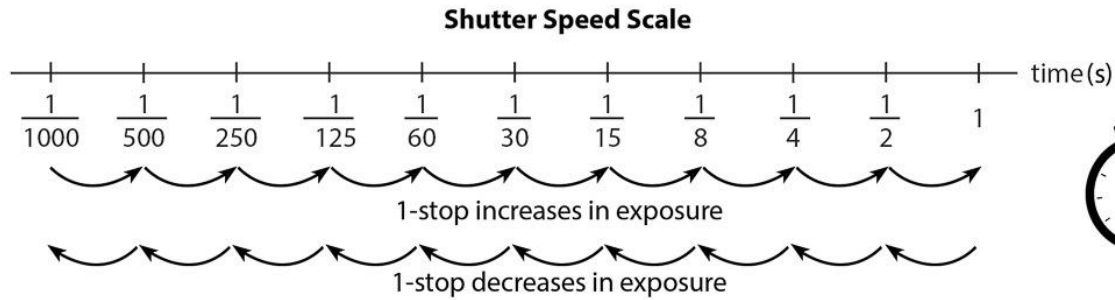
Hogyan?



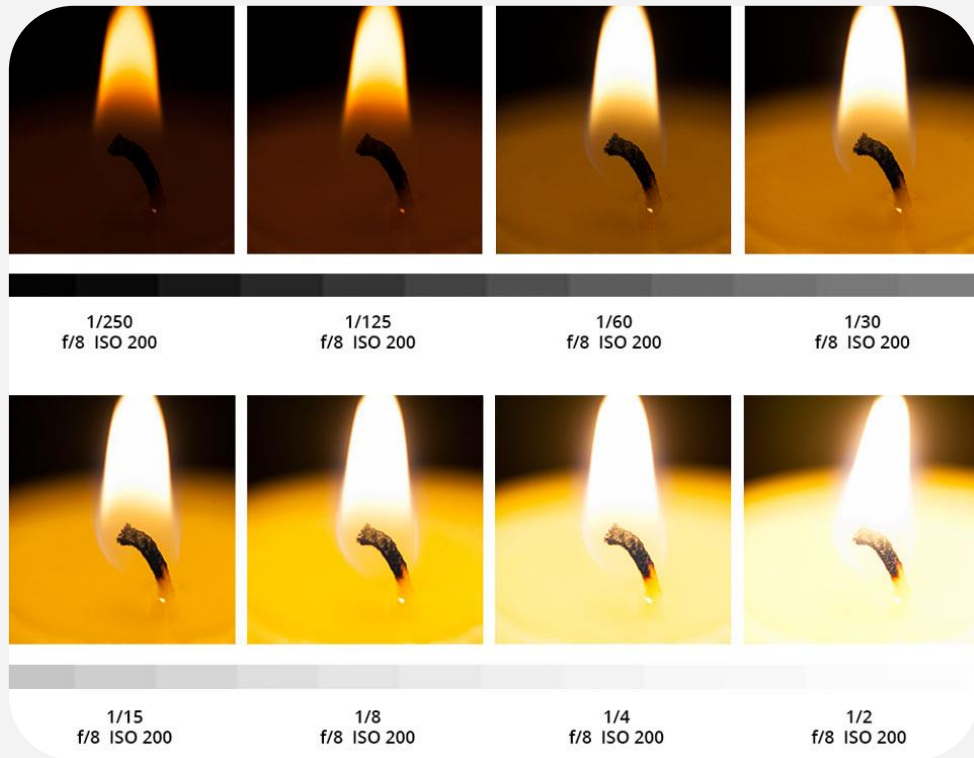
Exposure triangle



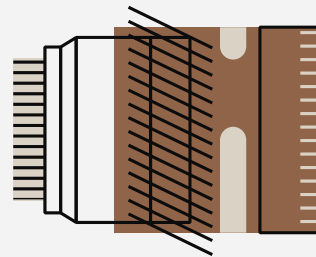
Shutter speed - záridő



Shutter speed - záríró



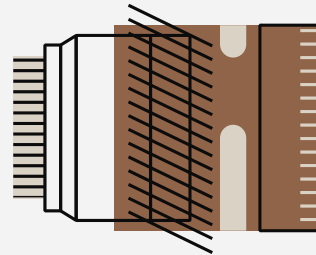
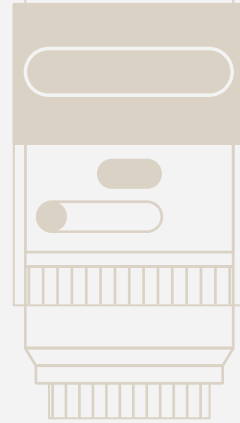
<https://www.bhphotovideo.com/explora/photography/tips-and-solutions/understanding-exposure-part-3-shutter-speed>



Shutter speed - záridő

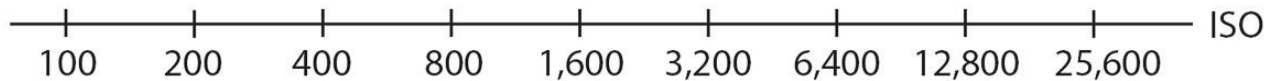


<https://www.bhphotovideo.com/explora/photography/tips-and-solutions/understanding-exposure-part-3-shutter-speed>



ISO

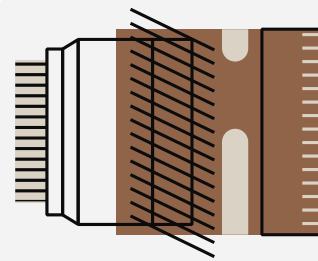
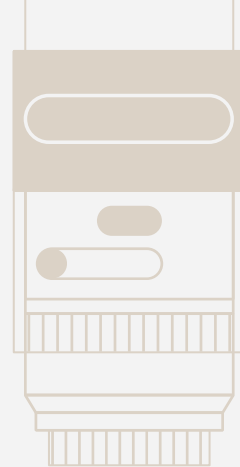
ISO Scale

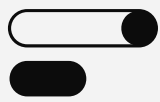


1-stop increases in exposure

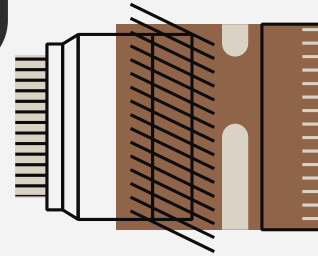
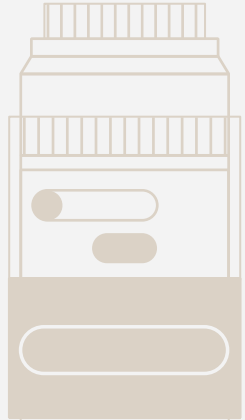
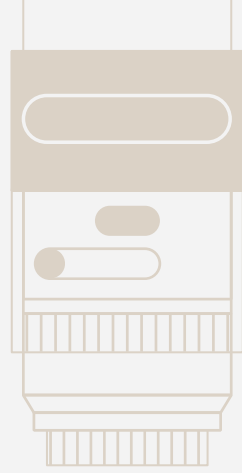


1-stop decreases in exposure

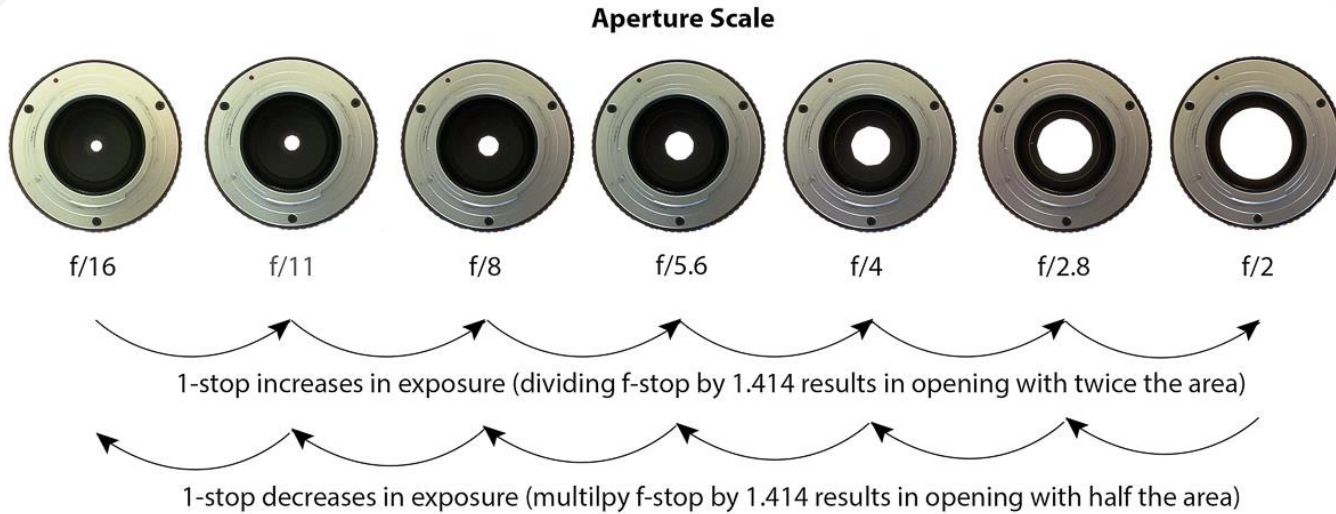




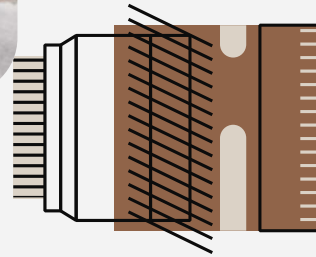
ISO



Aperture - rekesz



Aperture - rekesz



Intraorális kiegészítők



<https://www.amazon.in/Background-Orthodontic-Photographic-Contraster-Photography/dp/B0757BX6VZ>

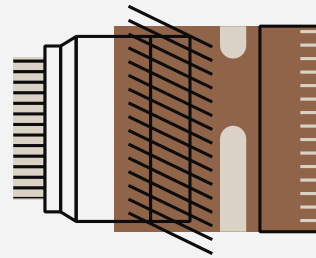
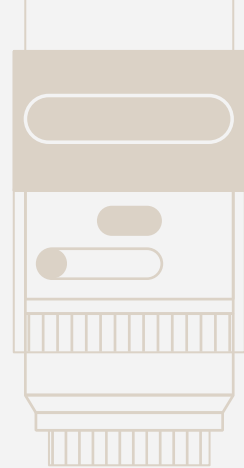
<https://uniomed.hu/hahnenkratt?sort=p.model&order=ASC&limit=96&page=6>

<https://www.wsdlabsusa.com/cheek-retractors-qty-25/>



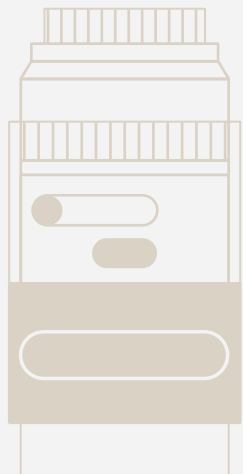
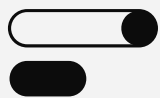
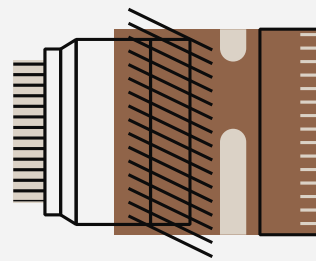
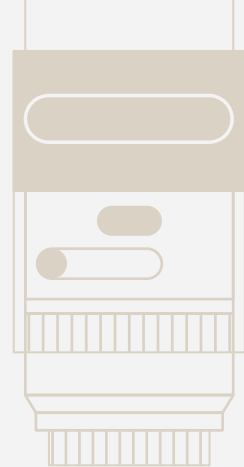
Leggyakrabban használt beállítás

- **Aperture - rekesz: f/22**
- **Shutter speed – záridő: 1/200 sec**
- **ISO - ISO200**
- **Macro objektív gyújtópontja - f=105mm**
- **Nagyítás - 1:3**

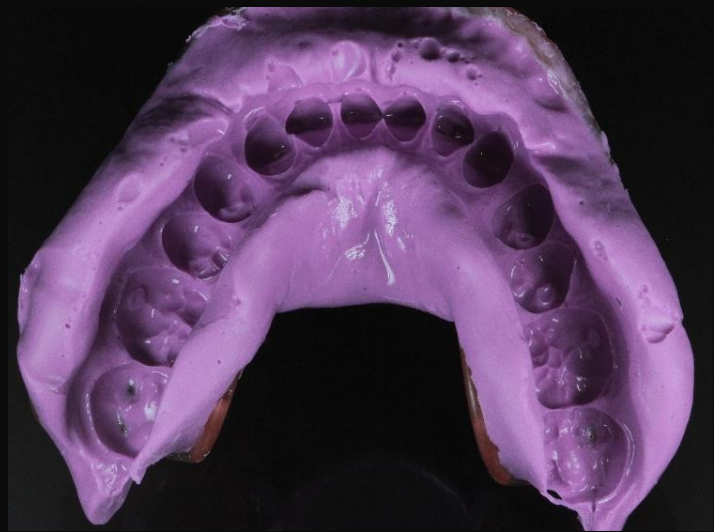
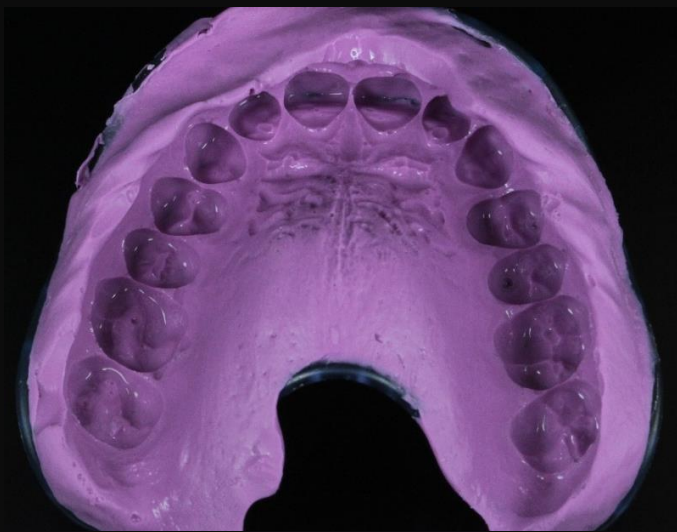
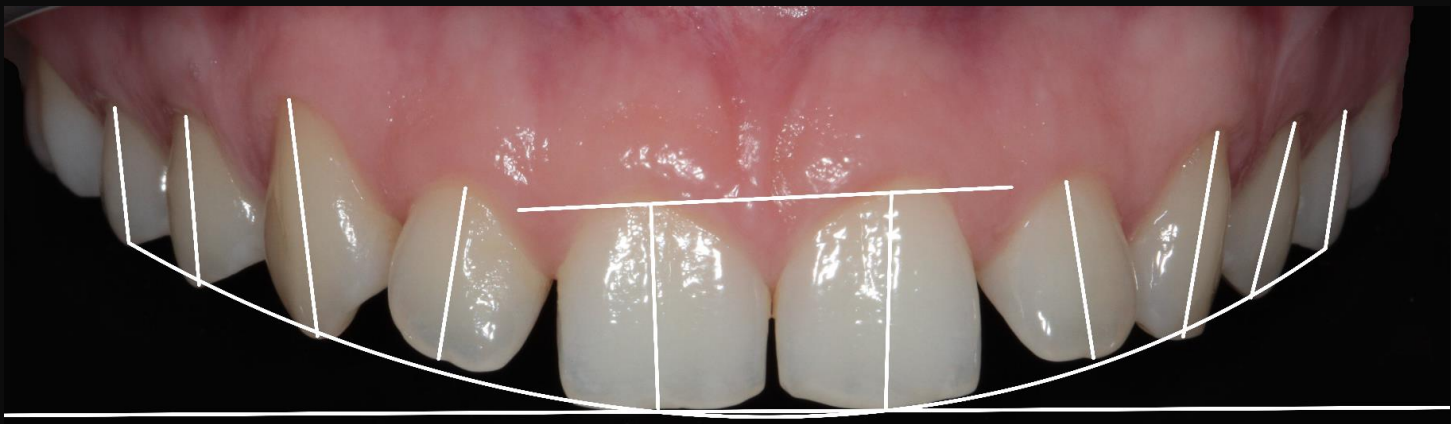


Tárgyfotózás

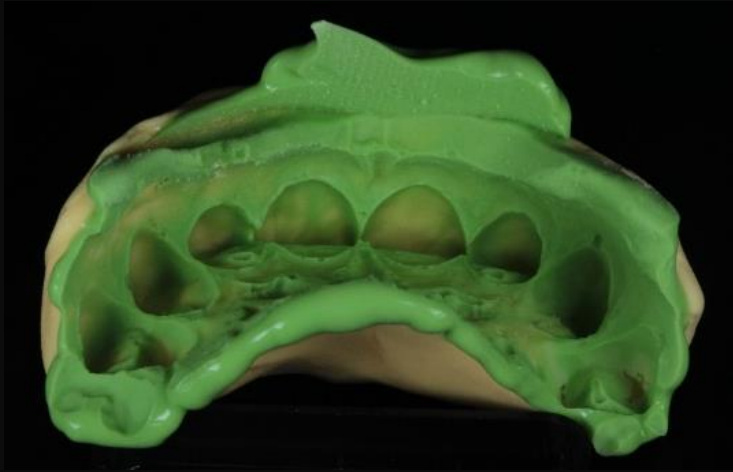
- **lenyomatok, minták, fogpótlások**
- **tiszta, homogén háttér**
- **kreatív fotózáshoz tükör, különböző irányú fények**



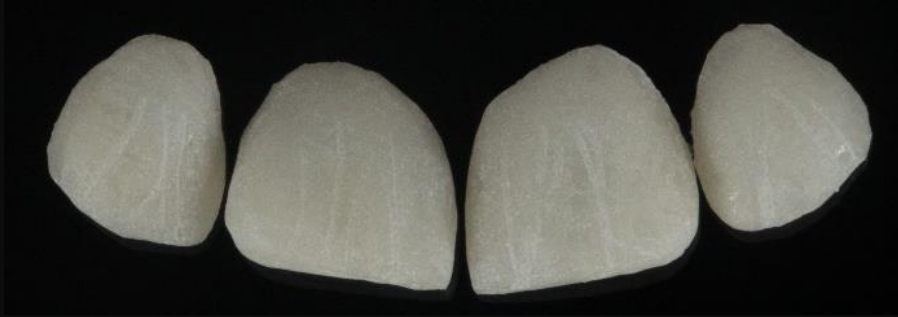






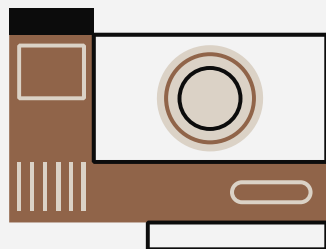
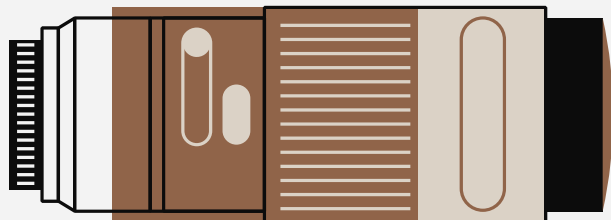
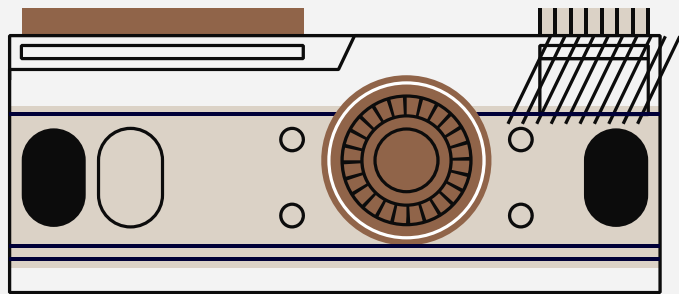












Köszönöm a megtisztelő figyelmet!

horvath.daniel@semmelweis.hu