

# Marloes Kroonen

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TU Delft

Chair

Dr. Ir. J. F. M. Molenbroek

Mentor

Y. Song



Ergonomie is belangrijk  
bij het ontwerpen van producten







# 4D Digital Human Model for Designers

Visualiseren van antropometrische data om de toepasbaarheid van ergonomie te vergroten

SubjectId,abdominalextensiondepthsitting,acromialheight,acromionradialelength,anklecircumference,axillaheight,balloffootcircumference,balloffootlength,biacromialbreadth,bicepscircumferenceflexed,bicristalbreadth,bideltoidbreadth,bimalleolarbreadth,bitragionchinarc,bitragionsubmandibulararc,bizygomaticbreadth,buttockcircumference,buttockdepth,buttockheight,buttockkneelength,buttockpoplitealength,calfcircumference,cervicaleheight,chestbreadth,chestcircumference,chestdepth,chestheight,crotchheight,crotchlenthomphalion,crotchlenthposterioromphalion,earbreadth,earlength,earprotrusion,elbowrestheight,eyeheightsitting,footbreadthhorizontal,footlength,forearmcenterofgriplength,forearmcircumferenceflexed,forearmforearmbreadth,forearmhandlength,functionalleglength,handbreadth,handcircumference,handlength,headbreadth,headcircumference,headlength,heelanklecircumference,heelbreadth,hipbreadth,hipbreadthsitting,iliocristaleheight,interpupillarybreadth,interscyei,interscyeii,kneeheightmidpatella,kneeheightsitting,lateral femoralepicondyleheight,lateral malleolusheight,lower thighcircumference,mentonsellionlength,neckcircumference,neckcircumferencebase,overheadfingertipreachsitting,palm length,poplitealheight,radialestyliionlength,shouldercircumference,shoulderelbowlength,shoulderlength,sittingheight,sleevelengthspinewrist,sleeveoutseam,span,stature,suprasternaleheight,tenthribheight,thighcircumference,thighclearance,thumbtipreach,tibialheight,tragiontopofhead,trochanterionheight,verticaltrunkcircumferenceusa,waistbacklength,waistbreadth,waistcircumference,waistdepth,waistfrontlengthsitting,waistheightomphalion,weightkg,wristcircumference,wristheight,Gender,Date,Installation,Component,Branch,PrimaryMOS,SubjectsBirthLocation,SubjectNumericRace,Ethnicity,DODRace,Age,Heightin,Weightlbs,WritingPreference

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Support,92Y,Germany,2,,2,26,61,142,Right hand  
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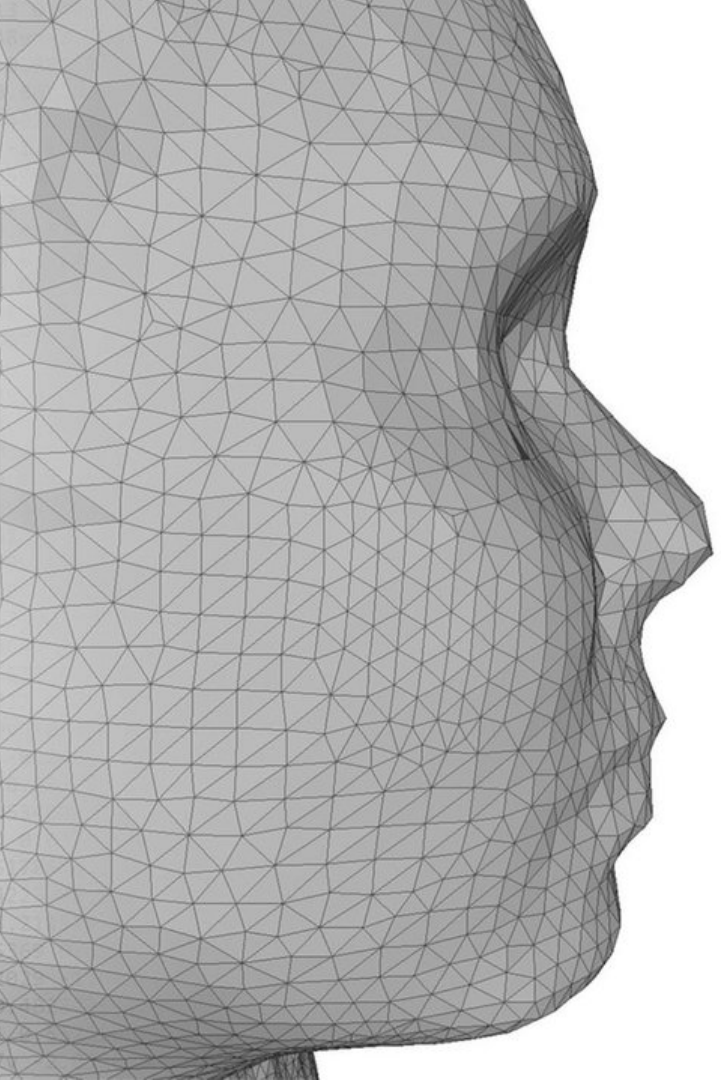
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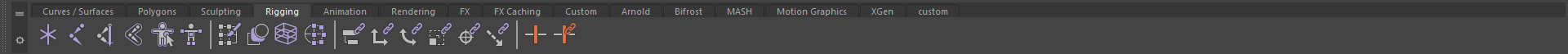
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3



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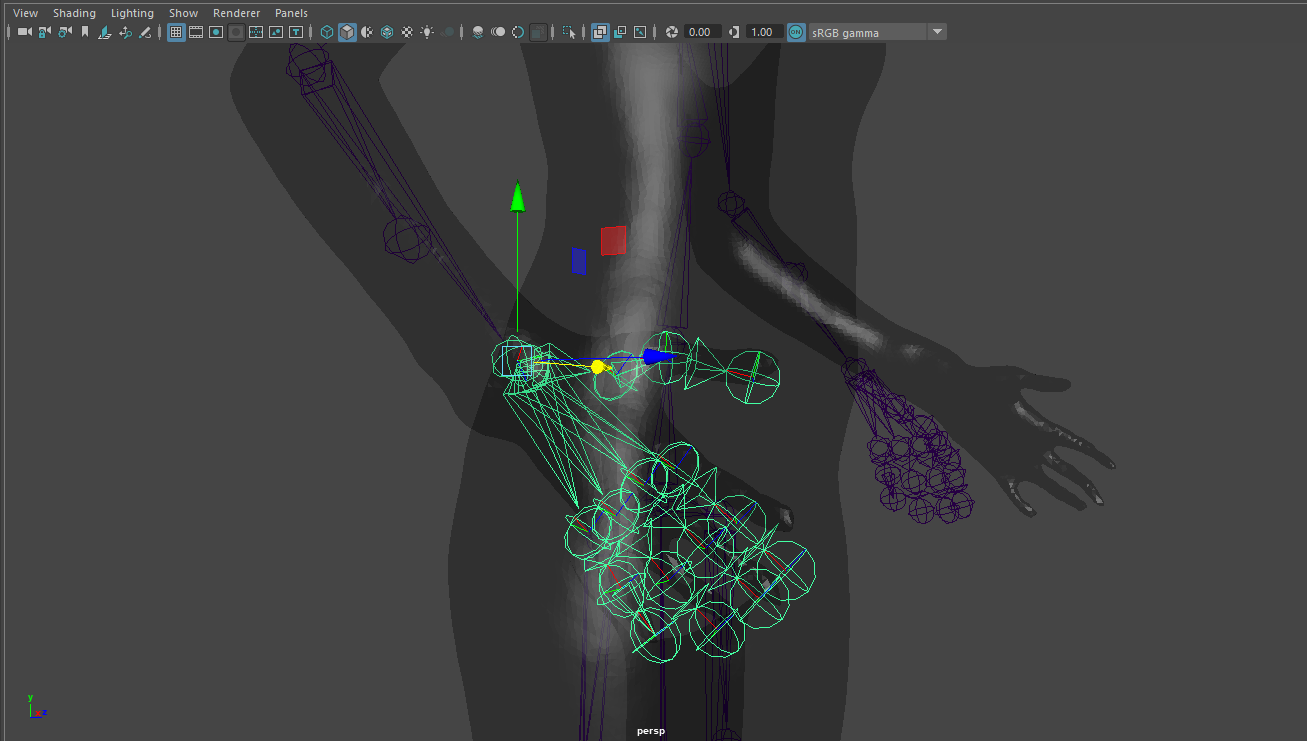




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  - SK\_Mannequin\_Mobile
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      - pelvis
        - spine\_01
        - spine\_02
        - spine\_03
          - clavicle\_l
          - clavicle\_r
          - neck\_01
          - head
        - thigh\_l
        - thigh\_r
        - ik\_foot\_root
        - ik\_hand\_root
      - left
      - defaultLightSet
      - defaultObjectSet



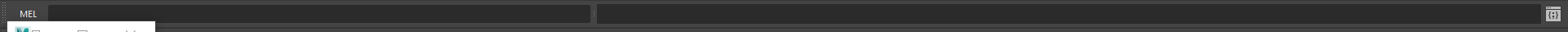
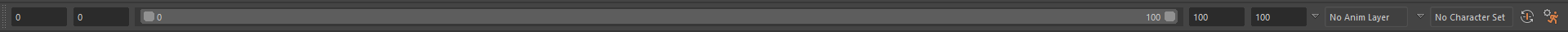
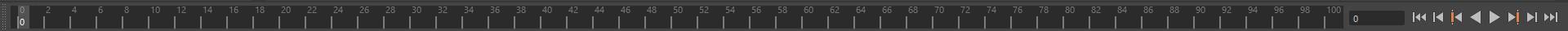
Character: None  
Source: None

Create

- Create Skeleton
- Create Control Rig
- Create Character Definition
- Create Custom Rig Mapping
- Quick Rig Tool

Import Samples

- Import Human IK Example
- Import Animation Example
- Get HIK and Mocap Examples Online









Relaxation/  
Rest

GREEN  
= Selected

RED  
= Error

small vibration  
to confirm selection

continuous internal  
vibration when  
reaching limit

Undo/Ctrl-Z





Filmpje

