



Meeting 1 (3.10.2020)



Do not send separately while sending mail. 3 of them with cc each time.

What did we talk about?

- If we cannot make 3D shoes, we can do it in 2D with the photo.
- At the end of the term, it was discussed that all 3 of us have models and a few models of clothes and that they should be dressed with drag and drop.
- While creating the model, it was decided to wear an outfit that covers the whole body for privacy.
- Is it possible to transfer from Unity to Iphone? Does Swift need to be learned?
- Can it be converted from Windows to IOS? (Or do you need a mac laptop)
- Mobile programming can be preferred as it will be useful in CV.
- It should be progressed by writing the pros and cons of everything. For example Vuforia plus is minus? (Blender, 3Dmax)

- Restrictions can be made according to our own project. For example, for the image marker: an AR project that works only on red socks can be made.
- The marker doesn't have to be just an object, it can also be a person. For example, if we hold the camera in a mirror, can the human silhouette be our image marker? It can be researched and discussed next week.

Things to do

- Can Korhan's silhouette be made after 3 weeks? (shoulder range)
- Can this model be transferred to the phone? Once done, it must be tested.
- After 3 weeks, a 20-page document needs to be prepared.
- There should be a name that attracts attention and reflects the project.
- The documents submitted by Berk Gökberk should be examined and filled in as soon as possible.

Search These:

- Unity remote app
- Can an application be made that can be transferred from Unity to IOS?
- If IOS or android (mobile) programming needs to be learned, where should it be coded? (Do you need a MAC laptop?)
- [For IOS programming, review udemy andrena wolf.](#)
- Can 3-dimensional clothes and shoes models be made? (From Blender)
- Can we get the 3D shoes on the Internet? (Free download-access)

We Need To Pay Attention These:

- Will we be able to make the necessary effort and spare enough time for the project? If the answer to this question is no, the project should be changed early.
 - There should always be plan B in all matters.
 - Berk Gökberk will guide us with the questions he asks.
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Meeting 2 (11.10.2020)

What did we talk about?

- The notes of the weekly meeting will be written to Notion by Nur İmece.
- Literature survey will be done until October 24th.
- Articles will be read and short notes will be made.
- Nur İmece and Dilay Sapmaz will play a more active role in the research.
- How can machine learning be used in our project and at what stage will we need it?
- We will investigate the code and libraries we can use ready-made.
- It was decided to design a model over the blender. Korhan Aladağ took on this task since Blender had also done projects before.
- Is it possible to use Xcode without Apple id?
- Do we need to use Virtual machine while using Xcode? Does this situation slow us down while doing the project?
- Since Vuforia is a paid application, there will be other alternatives in our project.

- The name of the project was talked about but no remarkable name was found.

We need to talk at the next meeting:

- ☐ It has not yet been decided whether the project will go through the model or through ourselves.
- ☐ We can use the model we will build in three ways:
 - Just trying on clothes
 - Just try on shoes
 - Trying on both clothes and shoes
- ☐ What will be the marker in the project should be determined.
- ☐ The name of the project will be determined.
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 2. Literature survey will be done until October 24th.
 - Articles will be read and short notes will be made.
 - Nur İmece and Dilay Sapmaz will play a more active role in the research.
 3. How can machine learning be used in our project and at what stage will we need it?
 - We will investigate the code and libraries we can use ready-made.
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 - Articles will be read and short notes will be made.
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12. The name of the project was talked about but no remarkable name was found.



Meeting 3 (18.10.2020)

- Is there a ready-made face in the blender? Or should we create it ourselves?
- Can animation be made in Unity or blender?
- Literature survey must be submitted on Sunday, October 25.
- It was decided to hold a short meeting every Sunday.

Articles and Links

- The links were arranged in terms of appearance.
- The display clutter of the sources found for the survey in the Notion should be corrected, the link should be hidden.
- While the research was being carried out, the distribution of tasks was made as to the internet and MEF database.
- Berk Gökberk gave information about the literature survey.

- References should be made in the IEEE format. The author name "and" must be the name of the article and the date must be at the end (in IEEE format)
- Articles related to our subject should be briefly summarized with sample photos. (about two pages)
- 30 articles should be read in total.
- While researching the articles, priority should be given to the recent ones. (For example, there should be articles published between 2015-2020.)
- The references for the article should guide us, and these references should go from article to article.
- Subjects to be decided within 1-2 weeks: Do we want to work in 2 dimensions or in 3 dimensions? While reading the article, it will be done by considering three places:
 1. The most important is abstract.
 2. Introduction- Literature 1 and 2 sections should be read carefully. The method part can be passed quickly.
 3. The article review should be completed by reading the conclusion section in detail.

Approximately one hour is sufficient for each article to be read. There should be plenty of pictures and references.
- Another part that is desired to be included in the literature survey is to mention the examples that have developed methods but failed. (For example, changing the pattern or the model of the clothes)
- The figures in the article should definitely be interpreted.
- There are important articles between 7-14-21 and 20-30 in the references in the Amazon article sent by Berk Gökberk.
- Notion pages should be updated. (Meeting1 should be translated)
- Which brand has done what as Conversial? It should be gathered under a heading and briefly informed. (For example, Lacoste, converse, atasun have studies on this subject can be researched)
- Necessary responses to emails should be given in a short time.

- October 25 was set as the deadline for the body model.



Meeting 4 (25.10.2020)

- The user should be able to provide movement of the model, animation should be added to the model.
- Can there be 5 different models of clothes such as 3D shoes, trousers, jackets?
- There may be a progress presentation after 2-3 weeks. (Seeing the models with their clothes in the living room)
- How to add automatic caption figures in Word?
- The location of the project was not decided. (Which app it is in)
- Blender and unity should be installed on everyone's laptop.
- Survey and who has done what and what has been checked and mistakes have been determined.
- The Survey should have a description below the figures and the figure should be centered on the page.
- The text of the figure and the article should be the same size.
- Grammarly should also be written and errors should be corrected and transferred to word.

- Reference should be written right after the article is written.
- Writing in Google documents as a whole saves time.
- The project template must be in the notion.
- Can the color of the garment change on the blender?
- In a literature survey, tables should not be put as pictures, they should be drawn again.
- The direction of the project may change. (We can use 2D modeling instead of 3D)

Project risks:

- Can 3-dimensional clothes and shoes be found?

Tasks to be delivered in the meeting next week:

- ☐ An Ar demo should be made on any topic next week.
- ☐ How does Augmented reality work, how does it get the image from the camera, how does the code work?
- ☐ The literature search should be merged and the titles of the articles removed while they were combined.
- ☐ Literature research must be submitted on October 30 in template format.
- ☐ One person is responsible for finding outfit models, while the other two are responsible for displaying human models with clothes in unity.
- ☐ Can we see the model with its 3D outfit in the living room?



Meeting 5 (1.11.2020)

- The name of the project should be chosen attractively. (Let the title be determined this week)
- Information was given on how to change the project report.
- A half-page abstract should be written for the thesis. A summary should be written for now.
Turkish should also be written.
- Keywords of the project: AR, virtual clothing, computer graphics, fashion ...
- How to make a table of content in Word, work on automatic settings in word.
- The abbreviations (VR, AR) in the project should be written with their explanations.
- Why is virtual clothing important in the motivation section? It should be considered general. It should be about one page.
- What are the economic security benefits to society in the broad impact section? Since it is a virus, it is a very useful technology that prevents it from spreading, and it is beneficial because it does not give back what it has bought economically. It will also affect the rate of going to the shop, save

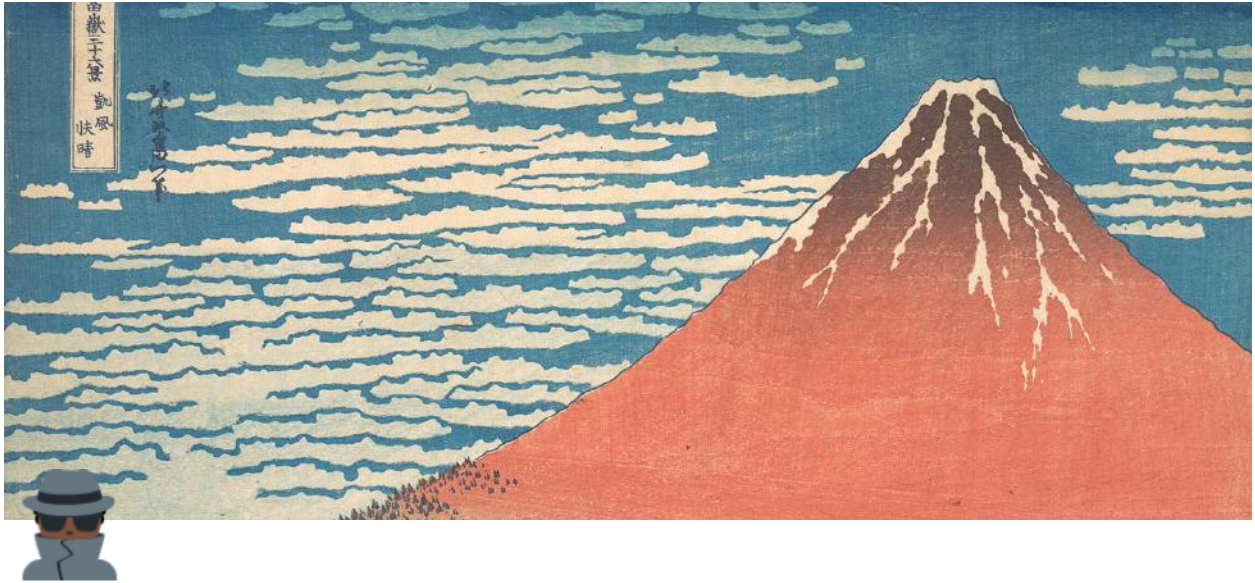
time, reduce the number of employees, buy clothes they are more confident in. It should be made as one page each.

- Global-environmental impact: Gasoline consumption will decrease, as it is online. Are there legal consequences for health and safety?
- When writing a formula, numbers should be given and the next sentence should start from the inside.
- Project definition describes here what the project is. This is a more detailed version of the abstract.
- Project planning, Gantt chart should be put here and then tasks should be explained. One paragraph is enough.
- 3D model research, such as body models. Our project consists of the following stages. These tasks are explained below.
- After the explanations of the tasks, a Gantt chart should be given.
- Aim of the project: There may be publications with the definition of the project.
- Project coverage: What we will do, what we will not do, as virtual projects are not covered by the project.
- Doing the project on a mobile device seems to be limited only to those clothes.
- Use cases: user chooses dress, modify dress.
- Ian Sommerville-Software Engineering must be downloaded. (Page 33) - (Page 125) Font and colors must be the same. (Page 147) (page 150 UML) (156)
- Success Criteria: Why is practice good and why is it bad? Is it realistic? Is it useful?
- Speed / Fast is important, clothing count options are important. Can the color of the clothing be modified, etc.?
- Factors of how successful the application will be. Two paragraphs each should be explained.
Technical problems can also be written.

- Project time: 14-week project - 3 people project.
- Solution Strategies: Producing AR 3D models and using unity.
- Risk Analysis: 3D human modeling: models may not look realistic, if 3D is not made, it can be switched to 2D.
- If the mobile application cannot be reached, a desktop should be used. Where problems may arise and how can this problem be solved.
- Tools (things we need, camera compiler) both hardware and software.
- Theoretical Background: In this section, firstly, the literature research and our solution methods in 3.2 are explained.
- After giving reference in the text, the picture should be included.
- Are there spaces and tabs between paragraphs? It should be checked according to the template.
- Gökberk et al can be used as developed. (If more than 2)
- Numbers between 0-9 should be written as words in the article.
- Unclear tables should be created. (Figure 8) (Figure 10) (Figure 22). Figures should be one on the other.
- Attention should be paid to the spaces between paragraphs. Figure and caption must be on the same page.
- There should be a space between the paragraph and the figure.
- Unclear figures should be removed. Use the user instead of he-she. Figure 40 should be corrected.
- Explanations of abbreviations such as Vr Ar should be written once.
- The methods we mentioned above are productized. These products are examined below. (It could be an entry of Companies).
- Combine Figure 73 with 74 and join 75-76. Crop the Figure 76. The target name in the figure should be small.

What to do for the next meeting?

- The Augmented Reality demo will be coming next week.
- There should be 5 shoes and 5 shirts each. Pants should also be added. Can the clothes fit on the bodies?
- Can clothes be put on a man and a woman?
- The project may change according to the risk analysis.
- The report must be corrected and sent by Friday.
- The 3-dimensional body in the blender should be adapted to the body.
- Can the woman we modeled in the blender be shown on the carpet?
- Put the document in Notion.



Meeting 6 (8.11.2020)

- Is it sufficient for both the model and the clothes to be fixed and dropped by drag and drop?
- Can auto scale and auto-rotate be done and how can they be done?
- Will it be possible to make clothes for the project or have difficulty finding it?
- Can we design clothes that should be tested? Can each of us make pants, t-shirts, shirts (next week)?
- Can a new T-shirt be made by adding the existing clothes?
- Shorts model must be found.
- Models with different body structures should be found. (Five different women, men, and two children should be different genders.)
- There should be very different bodies such as overweight, thin, long, and short.
- While models are found, they must be in fbx type.
- Marker should be put on the carpet while making the Ar demo, can we see it on the carpet?
- Video should be discarded if it can be done.

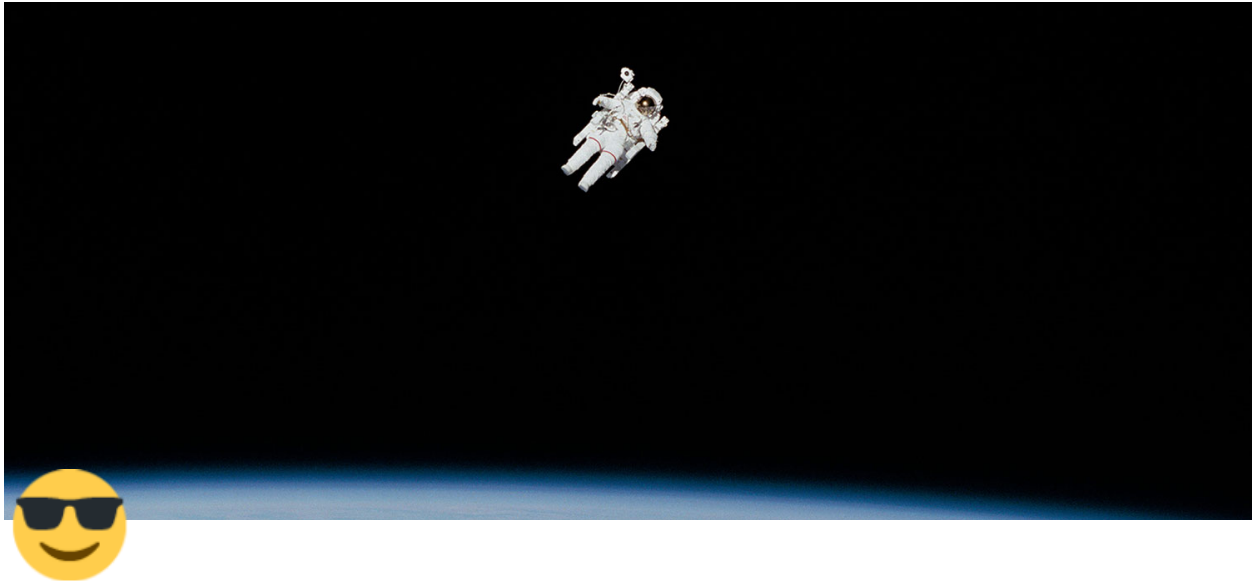
- Clothes and models should be kept separate.
- GUI content and catalog should be considered. (Framer js, Invision, Sketch tutorial, Figma prototyping should be drawn with these.)
- The first three chapters should be written for a progress presentation. (Within two weeks)



Meeting 7 (29.11.2020)

1. All-inclusive ten-page slides should be prepared.
2. The name of the application, the name of the project may be different. For example; Virtual Clothing using Augmented Reality: Virtual Catwalk.
3. Slide Two: Project definition (with lots of visuals). There should be a picture to describe the project on the first slide, and a written version on the second slide.
4. A slide can contain a maximum of 4-5 bullets. A bullet can have a maximum of two lines. Its size is used as 18 fonts.
5. Each slide must have a picture.
6. On the fourth slide, previous similar studies (Literature survey research should be used.) A slide should be divided into four and the examples of Ikea should be included in the top left, and Nike in the bottom right. Photo must be used. (Conversion products)
7. On the fifth slide, there should be 4 academic works. It should only be a photo. Each image must be a company's product. The sharpness of the photograph must also be maintained.

8. On the sixth slide, the question of how we plan to do it will be answered. Augmented will be a reality medium, it can be told visually. It can be told without any writing. Three-dimensional people, three-dimensional clothes can be put into models dressed in one UI.
9. The question of what we have done so far should be answered on the seventh slide. The products modeled in the blender should be displayed. Augmented Reality has been entered.
10. Using Augmented Reality, a sweater should appear on a model in the living room.
11. On the eighth and ninth slides, the subject of what we did should be explained. It should be supported by photos.
12. The models we have used so far should be shown. Models must be captured while looking at us. For example, there should be many clothes above and models below.
13. The background of the slides should be white.
14. The question of what else to do must be answered. We will provide automatic dressing, the Augmented Reality part will be improved. How to design the UI for a mobile application?
15. Version1 of the presentation must be made by Wednesday evening.
16. The name in the drive must be changed.
17. The template should be checked.
18. Exceeding margins should be avoided in Project Planning. The first two columns must have a larger font.
19. Korhan will correct the English errors of the first two chapters.
20. It can also be written jointly in Word.
21. The video of the model with the clothes will be record.
22. Export each meeting and collect it in a file. [Pdf.io](https://pdf.io/) can also be combined.



Meeting 8(13.12.2020)

- Secret Anorak channel's videos should be watched by all members. (UMO-101)
- Secret Anorak-UMA videos have been viewed.
- Idle can be added, and movement can be provided.
- Videos about automatic dressing should be collected.
- All group members should look at the documentary of the Playmaker and look at the source code.
- Kinect (three-dimensional camera) was evaluated.
- It can be turned into an easier project, such as wearing glasses on the face.
- Can clothes be dressed in unity with code?
- 2D sources can also be evaluated.
- 11-29 January is the presentation period. (There are approximately 4-5 weeks)
- Using ready-made things is not enough, it should be developed and written in code.

- There will be no meeting next week. What has been done via mail will be written.
- Source codes on Github should be examined.



Meeting 9(27.12.2020)

- How does Ikea adjust the furniture according to its size?
- Computer vision can be continued using in the project.
- It adjusts the furniture size according to known objects (with reference).
- We can change the marker. It should be checked whether it detects the marker or not.
- Can IOS be supported? Can we continue to build our project using Swift?
- You can identify the carpet and put a chair or a person and continue.
- Since there are too many 2-dimensional resources, it can be continued here. It is easier to find resources.
- For the desired project, CNN - GNN should be known and more detailed research should be done.
- Can it be done on IOS?
- The marker distance should be checked.
- We need to find the right marker and do it accordingly.
- It should be checked whether the plane is working in the right place or not.

- What is the advantage of the marker?
- A demo of the project will be sent next week.



Meeting 10(10.01.2021)

- Indicator will tell the model to be big or small. Can we show the model bigger or smaller?
- The sizes of the models we will put should always be the same. It should be proportional to their size in real life.
- Can we find a way to increase or decrease the size of the models? We do it by reference to its actual size.
- Take a picture of a person (Nur's sister) one is close and the other one is 3 meters away. We'll put the model closer and farther for reference.
- We should always see people first. Can we put rotate?
- Make the model images in the slider as the model images we use (Dilay will do it).
- Put furniture options next to the models in the slider bar below. (Also we may able to slide the slider left and right.)
- Does the model zoom out if we place the models away? Next week, when we put the indicator near and far, the size of the model (object) will change.