# FORCE FIELD



### Co-funded by the European Union



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### START NEW BLENDER IN TOP VIEW AND INSERT PLANE







### ENTER THE EDIT MODE AND SUBDIVIDE IT INTO 10









# **BACK TO OBJECT MODE**







## POWER OF AR AND VR ADD CLOTH











# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/YU9vFRVQYVk





## ENTER EDIT MODE AND ALT + A DELETE MARKING EVERYTHING







## USE THE B KEY SELECT VERTEX ON THE LEFT SIDE









## ENTER THE OBJECT DATA PROPERTIES





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### **CLICK ON PLUS IN THE VERTEX GROUP WINDOW**







# CHANGE THE NAME TO FLAG







# THEN CLICK ON ASSIGN







## SELECTED VERTEX WILL BE ADDED TO THE FLAG GROUP







# **GO TO OBJECT MODE**









# **GO TO PHYSICS PROPERTIES**

|  | 8   | •                            | Q   |        |            |          | •  |  |  |
|--|-----|------------------------------|---|--------|------------|----------|----|--|--|
|  | ł۲  | 🔲 Plane                      |   |        |            |          | Ś  |  |  |
|  | ĉ   | 💥 Force                      | Force Field Collision   |        | Soft       | Body     |    |  |  |
|  |     | ្លឹ <sup>ក្ត</sup> ្ត Collis | sion  | Ô      | Flu        | uid      |    |  |  |
|  |     | × Cloth                      |   |        | Rigid      | Body     |    |  |  |
|  |     | 꼊 Dynami                     | c Paint   | प्र    | Rigid Body | Constrai | nt |  |  |
|  | 18  |                              | Field C Soft Body<br>sion C Fluid<br>Soft Body<br>Fluid<br>Rigid Body<br>C Paint T Rigid Body Constraint<br>Figlie 1.000<br>Properties<br>Mass 0.3 kg<br>osity 1.000<br>Model Angular<br>ISSOU<br>Nodel Angular |        |            |          |    |  |  |
|  | ଟ   | ~ Cloth                      |   |        |            | :=       |    |  |  |
|  | ~   | Quality S                    | Steps   |        | 5          |          | •  |  |  |
|  | G   | Speed Mult                   | plier   |        | 1.000      |          | •  |  |  |
|  |     | imes Physical Properties     |   |        |            |          |    |  |  |
|  | يو  | Vertex                       | Mass  |        | 0.3 kg     |          | •  |  |  |
|  | •   | Air Visc                     | osity   |        | 1.000      |          | •  |  |  |
|  |     | Bending Model An             |   | ngular |            | ~        |    |  |  |
|  | C   |                              |   |        |            |          |    |  |  |
|  | 6   | ~ Suimess                    |   |        |            |          |    |  |  |
|  | 8-9 | Ter                          | nsion   | 1      | 15.000     |          | •  |  |  |
|  | A   | Compre                       | ssion   | 1      | 15.000     |          | •  |  |  |
|  | •   | 5                            | ihear   |        | 5.000      |          | •  |  |  |
|  | 88  | Ber                          | nding   |        | 0.500      |          | •  |  |  |
|  |     | $\checkmark$ Damping         |   |        |            |          |    |  |  |





# NEXT GO TO SHAPE









# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/qEkICWqSg-I



## POWER OF AR AND VR USE SHIFT + A ADD FORCE FIELD / WIND









# **SET AS ON SCREEN**







## THE STRENGTH OF THE WIND IS AT 500







# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/rYFoyIA-VpA





## ENTER EDIT MODE AND CHOOSE SUBDIVIDE







## ADD COLORS FOR THE FLAG







#### BY INCREASING THE NUMBER OF VERTEX YOU WILL NEED TO CHANGE THE STRENGTH OF THE WIND









## **ADD MORE POWER FIELDS**







# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/E24gshL211w





# MAKE A SIMILAR ANIMATION YOURSELF

# **YouTube**

## https://youtu.be/PZtfcRQmshl





# FLAG ANIMATION IN OUR PROJECT

# **YouTube**

### https://youtu.be/dpM3Stjx7Bk





## INSERT THE CONE AND ADD A PARTICLE SYSTEM







# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/10crmC6X6Pg





## POWER OF AR AND VR SHIFT + A WE CAN ADD FORCE FIELDS







# PLACE THE WIND BELOW







# **SET THE STRENGTH TO 50**

| Ċi - | X Force Field             | ₹ Rigid Body Const | raint   |
|------|---------------------------|--------------------|---------|
| 5    | $\checkmark$ Force Fields |                    |         |
|      | Туре                      | 릦 Wind ∖           |         |
| 48   | ✓ Settings                |                    |         |
| S    | Shape                     | Plane N            |         |
|      | Strength                  | 50.000             | 1 ·     |
|      | Flow                      | 1.000              |         |
|      | Affect                    | Location           | •       |
|      |                           | distantion         | ·       |
|      | Noise Amount              | 0.000              | 1 - 1 I |
|      | Seed                      | 79                 |         |
|      |                           | Absorption         | •       |
| 88   | Wind Factor               | 1.000              | •       |





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

## https://youtu.be/0p37gKJy9Qs





# **SET GRAVITY TO 0**

| imes  Field Weights |       |
|---------------------|-------|
| Effector Collection |       |
| Gravity             | 0.000 |
| All                 | 1.000 |
| Force               | 1.000 |
| Vortex              | 1.000 |
| Magnetic            | 1.000 |
| Harmonic            | 1.000 |
| Charge              | 1.000 |
| Lennard-Jones       | 1.000 |
| Wind                | 1.000 |
| Curve Guide         | 1.000 |
| Texture             | 1.000 |
| Fluid Flow          | 1.000 |
| Turbulence          | 1.000 |
| Drag                | 1.000 |
| Boid                | 1.000 |





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/PoQGuFacQMs





## PERFORM SEVERAL SIMULATIONS BY YOURSELF CHANGING THE SHAPES **AND PARAMETERS OF THE PARTICULAR SYSTEM AND FORCE FIELDS**







# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

## https://youtu.be/iwtpzDAQBU4





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/khZQ8kSKfh0





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/eG88R2ZykrE





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/H8h7OJMmta4





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/ad3oGwuzvCk





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/4ejR2R5U0VQ





# PRESS THE SPACEBAR AND SEE THE ANIMATION

# **YouTube**

### https://youtu.be/d7JkcIY-J6k

# THANK YOU FOR YOUR ATTENTION



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