

# KRACKEN

◆ AR FIRE CRACKER SIMULATION

# WHAT IS CRACKEM

CRACKEM IS AN **AR** FIRE CRACKER SIMULATOR WHICH IS EXTREMELY FUN TO USE, IT HAVE ALMOST ALL THE FIRE CRACKERS YOU CAN IMAGINE. ITS SAFE FUN AND CRAZY. WE'LL HAVE A WHOLE ARSENAL FULL OF FIRECRACKERS RANGING FROM CLASSIC DIWALI FIRE CRACKERS TO, WORLD ENDING NUCLEAR BOMBS. A PLAYER CAN CLEAR LEVELS OR EARN COINS TO UNLOCK FIRE CRACKERS.

# PLANNED MECHANICS

## SCREENS :

SPLASH, LODAING, MENU, SETTINGS, GAME MODE SELECT, AR MODE, LEVEL SELECT, LEVEL SCREEN, GAME OVER/WIN

## MECHANICS :

- AR INTIGRATION
- JSON LEVEL DATA AND CREDENTIALS
- OPTIMISED SFX AND OBJECT POOLING
- HIGH QUALITY PARTIAL SYSTEM MANAGER FROM OPENGAMEART.COM
- CHALLENGES SYSTEM
- IN GAME CURRENCY

# WHY IN THE WORLD?

SO WHY IN THE WORLD WE NEED AN **AR** FIRE CRACKER SIMULATOR???  
A SIMPLE ANSWER TO THAT QUESTION IS, FIRE WORK ARE DANGEROUS  
AND CAUSE AIR POLLUTION SO YOU KNOW "ENVIRONMENT", THATS WHY  
BRO, ON TOP OF THAT IT WONT BE LIKE 500 AIR QUALITY INDEX AFTER  
DIWALI IN INDIA IF THIS APP TAKES OVER LOL.

ALSO THAT MY FRIENDS SADDAM SAID ITS A DOPE IDEA SO IT SHOULD  
BE :).

PS: I HAD THIS IDEA IN MIND FOR QUIET SOME TIME I WAS JUST TOO  
LAZY OR BUSY TO MAKE IT

PROGRESS

# UNREAL ENGINE

UNREAL ENGINE IS A HIGH-END GAME DEVELOPMENT ENGINE, EFFICIENT IN CREATING VISUALLY AND MATHEMATICALLY REALISTIC VIDEO GAMES. IT IS MOST COMMONLY USED BY AAA GAME DEVELOPMENT STUDIOS AND CONSOLE DEVELOPERS, WITH A NICHE AMOUNT OF INDIE DEVELOPERS ALSO UTILIZING IT. THE LIGHTING, SOUND, AND 3D CAPABILITIES OF UNREAL ENGINE ARE UNMATCHED BY ANY OTHER GAME DEVELOPMENT ENGINE. THE COST FOR SUCH POWER IS PAID IN BUILD SIZE, HIGH PROCESSING DEMANDS ON THE CPU AND GPU, AND THE OVERALL SIZE OF UNREAL ENGINE.

# OTHER SOFTWARE

BLENDER: TO MAKE 3D MODELS WHICH I WAS NOT ABLE TO FIND ONLINE

SUBSTANCE PAINTER: TEXTURING AND RENDERING.

ADOBE PHOTO SHOP: USED TO EDIT TEXTURES AND BASIC RASTER ART  
[AINT NOTHING ADOBE'S LIKE MONOPALY AND THERE RIDICUSLY PRICED  
SOFTWARE]

ADOBE ILLUSTRATOR: USED TO CREATE VECTOR ART FOR MENU BUTTOSN  
AND WHATEVER

AUDACITY: SFX AND AUDIO EDITING

## REFERENCES

OPENGAMEART.ORG  
GOOGLEFONTS.COM  
MAXIMO.COM  
UNITYASSETSTORE.COM  
GAMEDEVMARKET.NET  
ARTSTATION.COM

## MODELS

SMALL CRACKER  
MEDIUM CRACKER  
BIG CRACKER  
CLUSTER BOMB  
BIG BOMB  
SMALL BOMB  
MEDIUM BOMB  
BIG BOMB  
ROCKET  
ICBM  
TACTICAL NUKE  
FOAB  
TREE AND SCENR

## SFX

WALK\_SFX  
BGM  
SFX FOR ALL EXPLOSIVES  
MENU\_BGM  
NUKE\_SFX  
CLICK\_SFX  
MISSILE TRAIL SFX  
A LOT MORE



## ANIMATIONS

THERE IS NO NEED FOR ANIMATIONS IN THE GAME AS ITS JUST LIKE A SPAWNING SIMULATOR WHICH HAVE STATIC MODELS WITH PARTICAL EFFECTS EXPECT A FEW EXCEPTIONS.

## PARTICLE SYSTEM

HAVE DONE INTEGRATING A 50% PARTICLE SYSTEM FOR CRACKERS, REST WILL BE ADDED SHORTLY

## LIGHTING

MOST OF THE MATERIALS ARE EMISSIVE WHICH ARE NOT AFFECTED BY LIGHTING, ONE DIRECTIONAL LIGHT AND AND SOME LIGHT EFFECTS ON CRACKER EXPLOSION

## CODE

HAVE USED BLUE PRINTS FOR MOVEMENT, RECASTING, EXPLOSIVES,  
GAME MANAGER AND FORM INVENTROY

## ENVIRONMENT INTERACTION

DISTRACTABLE VILLAGE WITH HIT POINTS FOR EACH HOUSE

ACTIVITY	MAY	JUNE	JULY	AUGUST	TOTAL
CONCEPT AND DESIGN	X	X			2 MONTHS
PREPARATION WORK		X			1 MONTH
AUDIO ASSET SEARCH	X	X			2 MONTHS
AUDIO ASSET CLEANUP			X		1 MONTH
IMAGE ASSET SEARCH	X	X			2 MONTHS
IMAGE ASSET CLEANUP			X		1 MONTH
3D ASSET SEARCH	X	X			2 MONTHS
3D ASSET CLEANUP			X		1 MONTH
DEVELOPING IN UE			X	X	2 MONTHS
TESTING				X	1 MONTH
PACKAGING/SAVING				X	
TOTAL	4 MONTHS	4 MONTHS	4 MONTHS	3 MONTHS	-

# FUTURE ENHANCEMENTS

SELF MADE ASSETS: WILL MAKE ALL DOWNLOAD ASSETS TO SELF MADE ASSETS BECAUSE  
"PEOPLE WHO ARE VERY SERIOUS ABOUT THERE GAME DEV MAKES THERE OWN ASSETS"  
-ALAN KAY

MORE CRACKERS: HAVE TO ADD MORE CRACKERS TO THE GAME BEFORE I CNA RELEASE  
IT TO APP AND PLAY STORE

OPTIMIZATION FOR MOBILE DEVICES: WEAK AHH MOBILE DEVICES :( HAVE TO MAKE  
EVERYTHING LOW POLY...

SOME SORT OF AR MODE: HAVE TO FOLLOW INITIAL PLAN FOR THE GAME.

HAVE TO STOP BEING LAZY: PERSONAL GOAL.

# CONCLUSION

PROJECT SETUP: JUST MADE A NEW PROJECT AND STARTED YEETING ASSETS.

MODELING: MADE CRACKERS MODELS [ UNOPTIMIZED AND HIGHPOLY ]

PARTICLE SYUSTEM: INCLUDED EVERY CRACKER AND WEPON OF MASS DISTRUCTION.

ENVIIOUMENR INTERACTION: GIVING HP TO BUILDINGS AND ADDED EDESTROYING EFFECTS

EFFECTS: ADDING SOUND EFFECTS AND VISUAL EFFECTS.

TESTING: METHORDS TO MAKE GAME MORE OPTIMIZED

THANK YOU!

FOR BEARING WITH PPT FOR  
SECOND TIME IN YOUR LIFETIME