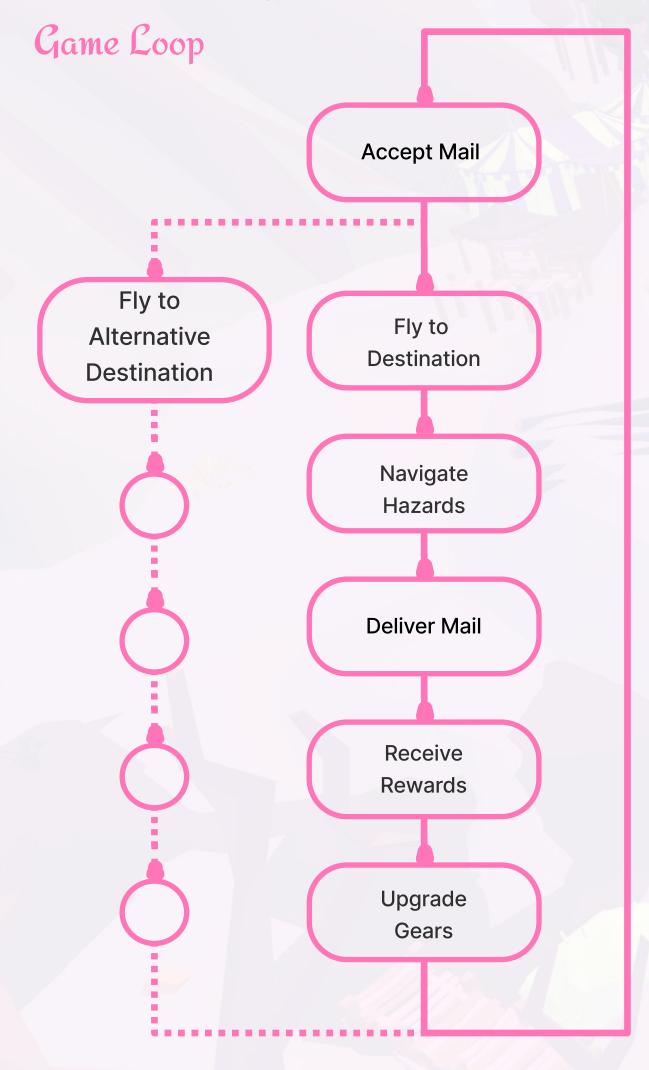


DESIGN

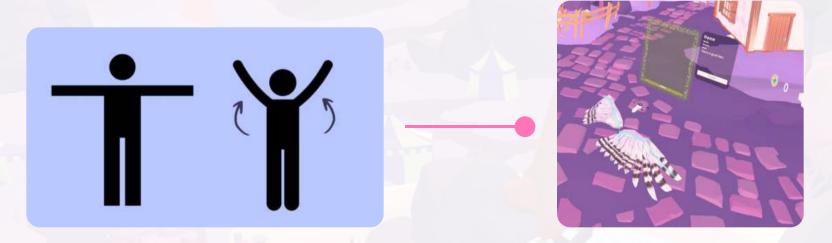
Game Play

Players take on the role of an owl and fly to deliver mail while avoiding hazards and managing resources like energy and time.



Systems & Mechanics Player Fly Behaviour

- Unlike traditional teleportation navigation in VR games, players control the main character by simulating bird behaviors.
- Players flap their wings to ascend and perform other actions such as gliding, tilting, and descending with intuitive wing movements.



Environment System

The environment introduces dynamic hazards that impact gameplay, including:

- Rain: Increases weight, causing a speed debuff and potential damage to packages.
- Lightning: Strikes during storms, leading to loss of control and a 2–4 second fall, damaging certain packages.
- Updrafts: Provide a constant upward force, reducing weight and increasing speed.
- Geyser Eruptions: Create turbulence within range, potentially damaging packages.
- Electricity Towers: Cause instant mission failure upon collision.
- Electromagnetic Interference: Leads to a 10-second disorientation, disabling the directional guide after falling to the ground.



Delivery System

- Sender: The origin of a package.
- Receiver: The recipient of a package, which can vary based on the narrative and include multiple recipients.
- Quest: Each package is tied to a quest, guiding players and driving narrative progression.
- Inventory & Packages: Players store packages in an inventory, each with attributes such as weight, time sensitivity or fragility. A package's condition is affected by time and hazards, ultimately influencing the reward.



Other Mechanics

- Characters: Interactable agents that can send or receive packages, initiate dialogues, and trigger effects.
- Dialogues: Display dialogue UI with AI-generated cinematic voiceovers for enhanced immersion.

- an oul VIR simulation game

DESIGN World Map / Level Design



- Easy Area I: Windy & Drizzling Slows player flight speed.
- Easy Area II: Fences, Railheads & Electric Wires Obstacles to navigate.
- Medium Area I: Geysers Risk of being lifted above clouds, harmful to live animal packages.
- Medium Area II: Lightning Storms Requires dodging lightning strikes.
- Hard Area I: Oceanic Storms Heavy rain, strong wind, and lightning, hazardous for flight and packages.
- Hard Area II: Volcanic Lava Severe threat to package safety.







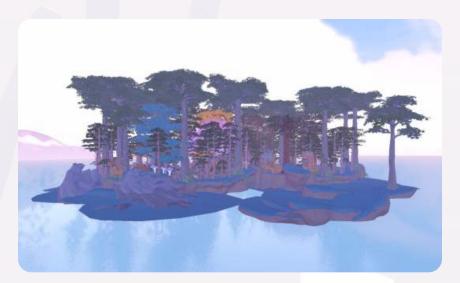












DESIGN Quests

Quests | Back to school Letters



Description + Sender:

- Sent from Magic Academy office
- Letters for students to prepare for the upcoming school year, and admission letter for new student

Recipients

- Professor's house
- New prefect and her best friend (light drizzle)
- New student (windy)

Delivery Items

• 3 Back to school letters & Prefect badge, 1 admission letter (vulnerable to water, no time limit)



Dialogue 1:

- "The Prefect! you've been made new Prefect, I knew it!"
- "But it would be a lot on top of my exams."
- "Oh you're bragging. Seems like I can get away with some rule breakings can't I?"
- "Don't you dare, I'll turn you in to professor!"



- "Let's see, if you are taking herbology this year, you won't be able to take my class"
- "Come on mum, I don't want to be in your class anyways, you're going to give me a Pass regardless"
- "Alright, but do choose your electives according to your future direction. sleep early, we have shopping to do tomorrow"



Dialogue 3:

- "An admission letter? addressed to our house."
- "Is that what I think it is?"
- "Read it read it!"
- "Dear Parents, we are pleased o inform you that..."

Quests III Poacher's Business

Description + Sender:

Sent from illegal hunting sites (Grassy field, River cave, Tree house)







They definitely belong back at their home, but they are worth a lot. They might have been in capture for a long time and need nurturing, maybe if someone could give proper care.....

Recipients

- Poacher's shack (Geyser region)
- School Creature Care (Stormy path with lightning hazard)

Delivery Items

Ginkgo lynx, Singing salamander, Glowing parakeet egg (vulnerable to altitude over cloud)



Dialogue 1:

- "My lucky animals! this one for the dark Order, this one good for a coat, ah who would refuse a pelt like this? This one from Albania ---"
- "Who would want this noisy thing"
- "Mind your own business or I'll turn you into one"



Dialogue 2:

- "Poor creatures! Are they from poachers?"
- "Leave them to me, I'll make sure to take good care of them, don't you worry"

Quests IV Urgent Scholarly Exchange

Description + Sender:

Sent from Herbalist's Garden This is a important recipe and related herbs for dragon pox cure.



Recipients

School potionare (volcanic region with Lava, Geyser, and Rain)

Delivery Items

Ancient herbal book, fresh & dried herbs (vulnerable to both heat and water)

Dialogue (sender):

- "Make sure these herbs get to the potionare safely"
- "Oh and don't forget to pick up the enchanted flower from the garden!"
- "Come around for tea again next time!"

Dialogue (receiver):

- "Look the owl has returned with post!"
- "Must be the recipe for the currr-!!"
- "It's called a cure! C U R E, now could you move away and let her in please?"







Visual Style

A stylized 3D fantasy theme with vibrant and immersive visuals.

3D Scene

A seamless fantasy world featuring castles and villages with detailed indoor design, forests, volcanoes, beaches, mountains, and other diverse landscapes.

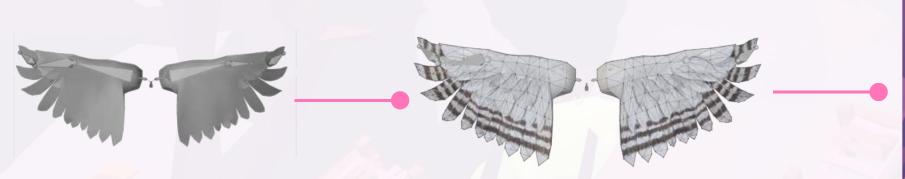


3D Characters

The player model consists of a first-person rigged wing system, with movement mapped to the wings for realistic and expressive gestures. NPCs are fantasy-themed and include detailed animations.

Animation Rigging

Chain IK constraints are utilized to achieve realistic wing movements for the player model.





Ul Design

Minimalist, fantasy-themed design with retro-style patterns and textures.









Sound Design

- Sound Style: Epic medieval fantasy music that enhances the immersive experience.
- Dialogues: AI-generated cinematic voice overs with British accents, perfectly matching the game's thematic setting.

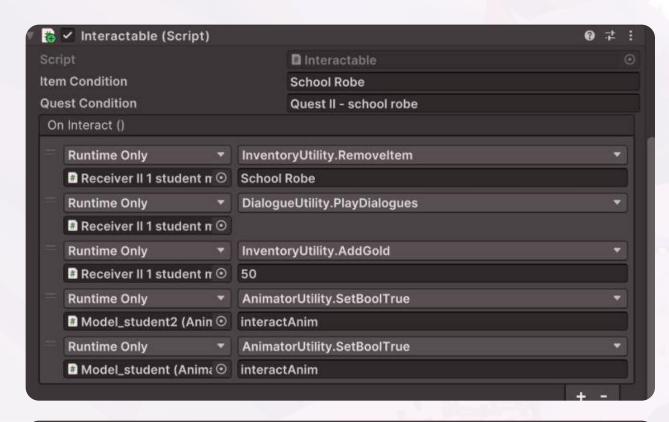


Bubo – an oul VIR, simulation game



Event-Driven Programming

Utilizes UnityEvent and UnityAction, following the observer design pattern, to manage interactables. Scripted utility components enable drag-and-drop actions, allowing for prototyping and rapid level building and without the need for additional scripting for each interactable.



```
Dialogue Utility (Script)
                                                                                 0 7
                                   ■ DialogueUtility
                                  A Receiver II 1 student mainbuilding (Transform)
   Finally got my new cape. Merlin! So chilly already in September!
   Audio Clip
                                  # 2-3-1 cape
                                  A Receiver II 1 student mainbuilding (Transform)
  Character
   What happened to the old one?

■ 2-3-2 cape

   Audio Clip
                                   A Receiver II 1 student mainbuilding (Transform)
  Character
   Don't even mention it! My last one ripped when I crashed into our window on a broom.
   Audio Clip
                                  # 2-3-3 cape
Element 3
                                   ♣ Receiver II 1 student mainbuilding (Transform)
Runtime Only

    QuestUtility.CompleteQuest

# Receiver II 1 student n 

Quest II - school robe
                       ▼ InventoryUtility.RemoveItem
# Receiver II 1 student n ⊙ School Robe
Runtime Only

    AnimatorUtility.SetBoolFalse

# Model_student2 (Anin @ interactAnim
```

```
. .
        isGrounded = Physics.OverlapSphere(transform.position - Vector3.up * groundOffset, groundDetection,
        float currGlideSpeed = glideSpeed;
        if (ignoreFlapTrigger || GetLeftTrigger() || GetRigtTrigger())
            float leftY = (leftControllerPosition - leftController.localPosition).y - Mathf.Max(0, GetLeftStick().y);
            float rightY = (rightControllerPosition - rightController.localPosition).y - Mathf.Max(@
 etRightStick().y);
                    velocity.y += leftY * flapForceModified * flapForceControllerFactor;
                   velocity.y += rightY * flapForceModified * flapForceControllerFactor;
                currGlideSpeed += (leftControllerPosition - leftController.localPosition).z * flyGlideSpeed;
         leftControllerPosition = leftController.localPosition;
        rightControllerPosition = rightController.localPosition;
        float inputV = 0
         inputH = Mathf.Min((GetLeftStick().x + GetRightStick().x), 1);
         inputV = Mathf.Min((GetLeftStick().y + GetRightStick().y), 1);
            transform.Rotate(Vector3.up * inputH * turnSpeed);
        if (inputV != 0 && Mathf.Abs(inputH) <= 0.5f)
            moveDirection += transform.forward * inputV * walkSpeed;
            characterController.Move(moveDirection * Time.deltaTime);
        else
            moveDirection += transform.forward * currGlideSpeed;
            characterController.Move(moveDirection * Time.deltaTime);
        if (Player.Instance.Effects.Find(e => e.HasTurbulence) != null)
           transform.Rotate(Vector3.up * Mathf.Sin(Time.time * turbulenceSpeed) * turbulenceAngle * Time.deltaTime)
         Vector3 velocityModifier = Vector3.zero;
         foreach (var effect in Player.Instance.Effects)
            velocityModifier += effect.VelocityModifier;
        velocity += velocityModifier * Time.deltaTime;
        velocity.y += Physics.gravity.y * Time.deltaTime * gravityScale;
         characterController.Move(velocity * Time.deltaTime);
```

```
[System.Serializable]
public class Effect
{
    public string ID = "Effect";
    public float Duration = 0; // s
    public bool IsUnique = false;

// Fly
    public float FalpForceModifer = 0; // %
    public bool BlockControl = false;
    public Vector3 VelocityModifier =
Vectpublizerbool HasTurbulence = false;

// Inventory
    public float WeightModifer = 0; // %
    public float SoundnessDamage = 0; // /s

// UI
    public bool BlockNavigationUI = false;
}
```

Scripts

Game Management

GameManager.cs

Effect.cs

Player

Player.cs

PlayerFlyBehaviour.cs

PlayerRespawnPoint.cs

Interactables & Characters

Interactable.cs

InteractableManager.cs

Character.cs

Character Manager.cs

DialogueManager.cs

DialoguePanel.cs

DialogueUtility.cs

Misc

AnimatorUtility.cs

UIBlackscreen.cs

Inventory System

Inventory.cs

InventoryPanel.cs

InventoryUtility.cs

InventoryPanelItem.cs

ItemConfigs.cs

Environment System

EnvironmentBuffer.cs

EnvironmentGeyser.cs

EnvironmentJam.cs

EnvironmentLightning.cs

EnvironmentRain.cs

EnvironmentVolcano.cs

Quest System

QuestArrow.cs

QuestConfigs.cs

QuestManager.cs

QuestUtility.cs

e – an oul VIR simulation game

DEVELOPMENT

Conceptualization

How to train your dragon: Borrowing the thrill and exhilaration of flight mechanics, the game recreates the excitement of soaring through the skies.

Harry Potter, Fantastic Beast and where to find them: Enriched with magical fantasy world-building, the game features a creative narrative with fictional creatures, adding

depth and wonder to its universe.

Sky Children of Light: Incorporating an explorative and almost meditative gameplay experience, the game offers players a chance to connect with the serene and enchanting aspects of its world.













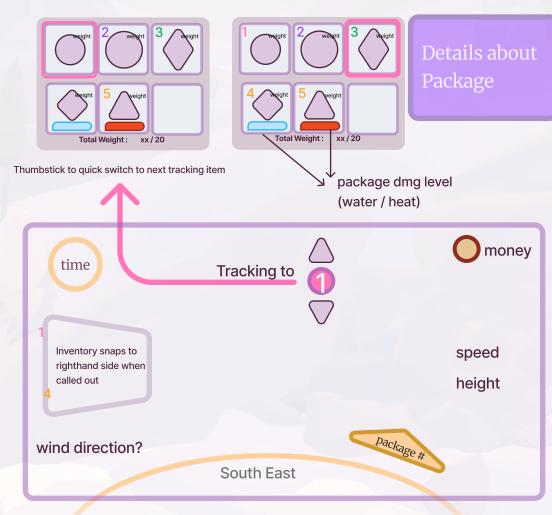
al Generated Sprites



Organized Quest to Build Narrative

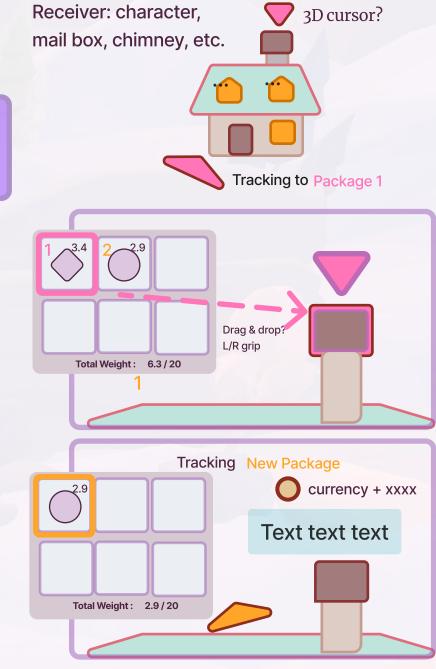
	Theme	weather	environment.	time limit	Queet Description	Package	Weight 1-10	Sender	Receiver	Dielogue
neighbourhood	Summer letters	winds	adarb reigideurfood streets	na limit	Eleck to school better for a problemon'? On no, obviously not for the period, ther son is starting this 3nd year.	Letter	,	echool	professor's family	neutation. "His see, Fyou are taking hardesings this year; you won't be able to hake my class;" "Lone on review. I don't want to be in your class anyways, you'n going to give me a "Pass regardless." "Allegt, but the choose your elections according to your feature direction, cheep early, we have alregarding to day tomorm." "You you, four."
					Latters or a part of Hunch bore 5th year mall hower sectord for school. A log section and a Southerland. A log section and a Southerland.	2 Letters and a badge	3	szbosi	head gid 5th year	meable of the probable have been made more probable, it leaves M. That invalid has a hid contain of my expension. The probable has been a been a been probable to the probable probable of the probable of t
					A young and heads one is about to beginning fee journey! better make ours the left	Letter	1	school	muggin Rulfistand	receive *An admission letter? addressed to our house *In the shall it that it is it." *med it mad it."
										received.
	Tat day of school	Palitay	magical academy	starts in the morning. Select moon	a casteroland commission with late of specific requests. Stelly for an experienced particle master	A cauldron, Presny)	10	school malitores	palee classreer	"On these if comes. This is a literarest factors coated operate order used to brear a chimers lumg postors". Your come around end watch classity." [sell only demonstrates order
					an sittings apoctacis, enchanted and repained as new; useful when doing lots of academic studies and reading	A research	2	school malkanin	Shrarten Shrary	Teaching ancalmend as I seed. thank and these year go, " Thick ord Could you also send this his behaland you go."
					A cluming shallest to be needing a new rate at this line of the year, they result he freezing! Institut deline: as soon as possible.	A school cobs	2	arbod malitann	in front of main building	receive "South get my more cape I Medial as child played yit september." "Antal tappement in the old mat?" "South more meetine, it my lactionshipped where installed also our wheleve on a larease." "What my policy and a bound from my complete of beautiful production." "What two policy and a bound from my complete of beautiful production."
									polymer	
					Dedicated to the one of top of arrivings lower, do they always watch over the sulsoo?	A special rote	1	Miration	office at top of astrology tower	"I have been availing for yes. The stars taid one that an out will alway one toggetion incodedge." "Jain the reduct I don't remember which book I become if income."
										"Could you need this to the Ancient Ruree class room"
	Even Week	windy	esspiral academy	before exam starts	Good Bing another professor reduced the furgetten panchesest, or the ancient nav-	A roll of parcherent	2	office	arcent rare classyon	receive: "OH? I though I had it, thank you? This is the savor"
					such delicate and contrasted package with no name but a drom name number you need the logo to be a investigated.	trouble bit	4	school malkeen	dendary	no delega
										sand. " THE be helpful if you pand this to the ploberry recen".
					one of the hightest here you've orcumentered, you might loose it to the wind if it's	c A badhar pan	0.5			receive "Seaso" from the my peril i forget it in a runti How did you even find me—" "Seaso" "Seaso"
					Maybe you could gift your heather to a Need for a quilt tool	(Moon away Feet Lest)	0.5	dontary	altherly room	" Good earn is starting now"
	Cintohnasi	entery but	rispical scadurey	below dieter heat	An astronomizety large sock, you suspect it to be for a glant if not for Christman.	a large sock	3	school malitaces	under the christmas in	n no dialegue
								school malitum	Motor	receive "could any paids one That prefix" "you can have first from thankyou" 2 most began of publishes plants' "extreme completing" "extreme completing"
					the kitchest wonder what they are preparing for the disser least	taliberare	1			
						a christmas sets	3	school malitson	shifted too	no dalagae
				ne limit	The gingerbrand eaths you to bring them to the Michael you are a little exertised if as lood they might be in damper flare, but this is a maple school. Prings don't exectly futire mornal logic.	a pinantonali man		served from the top of time	Michael	"Average" "you've heading to the litchess" could you being me there with you." "many childrenss"
				and the same of th	Perior is han the field also	a pripiriosal man		TOTAL THE TOP OF BOIL		- many consumer (respire): "my locky antivisted this one for the dieti. Onder, this one good for a count, at who would return a pelt like this?" "" "this core from alkands"
	Endangered Magical creatures	there might	forest rescurtain river reaginal academy	before suresp. don't want to nick being on	they definitely belong track at their home, but they are worth a tel. They might have been to capture for a long time and need containing, maybe, yest maybe it commone could give proper care.	girko lyra (have to Sy lov. heavy	10	gravity field side	the position's shack	"who would need this noisy thing" "who would need this noisy thing you tell ours"
					The salamanile is known in ter the respt variatived invest that harmonices with the These creatures delimitally beling tests at their horse, test they are worth a lot. They might have been in capture for a long time and need numering.	singing salamander	3	case and their site	School Creature Care	reconse. "Noor creatures! Are they have prechars?" "Leave there to see, 10 make ware to take good care of them, don't you warry"
					Mayle, just maybe it somewa used give proper care. The egg hasn't hashfed yet, its mother must be agentized to find it missing. It is consignable hare they stake it from the labor them. These snoatures definitely stating beaut at their force, but they are worth a lot.	mgry markets	2			
					They night have been in capture for a long tree end need muturing. Maybe, just maybe if someone could give proper pare.	phoning purphase agg	6	What tree house she	for yearfur's shack	
		min.		Selve right Self	very alley. Its introcurror and very alley, the minty air doesn't dimin to ligh, and			reyeterioux dealer from a dark alley way	Nillian.	send "send these to the market where it is? It's the black marked the location charges ever so other"
	dark magic object	n sentined visite	cay reasons		boundful and powerful five its dragon, but latel when in the wrong heard. The dusty little pare seem to be vary even. polive heard about a registrious basish of dark subspace family that has the haddin. This conclusious ancient and here been passed down for certificate.	apaleye disgon scala		rear a pub erysteriose dealer from a dark alley may	no clear sheet bigs Mark merbet alley	"ge latch the fiele kon fiel reaf. Hell Hing will golde you to orthorice" records 1 "Broke hand 1 have been swilling to don't my thind"
					it is national. The current head of house holds authority over current start market.		2	mer a pub.	Moles, on sheet street sign	"why are you still here? plausing to be a nacrifice?" "ugh here you go, shoe!"
					had note to hald in hand, its molesty enchandingly alluming, but it is undertably dark you are continue not to keep a firm grip, alluming but the flute and pourself exits	bone fluts (knowld guide (suuber when mear entrance)	1	will tell you to find if yourself it to on top of a rout	Mack morket alley Matter, no clear street sign	receive 2." "good eneming, two case I help you?" "on me, you save did the right young its bing these here"
		funder on								will a wanted and opposite the control of a single ways.
V potion & hertrs	request for aid in finding a cure	riting into	forest majurals river magical academy			herbuingy brotk (serroble to water)	6	petimen's house	herbelisch hat in ferest.	"cased year send this to the heddelid and get a response as some as you care?" "the weather's not looking too good, by careful on you way, safe tig."
							5	potenent's house	harballats hat in farest	receive "at her, sowed this one, you've got sumething for me?" "you must be discorded come in and to we some tes." "Ungant request"
						healt horb 2 (sexubble to water)		pick up from school greenhouse/parties	harbalist's had in forest	
								person-point		test principle and consequence
	Dia recipio		forest-take vocation following			the ractors				" makesury these hade not to the company safets"
	for urgest care		put			the recipe (serroble to heat)	1	Northalist's but in formal.	polistans's house	"on and duet longer to pick up this enchanted flower from the gardent" "come anound for tea agein need from?"
						(fried horbs (correlate to heal)	3	Perbalist's had in ferent.	polionaru's boson	
										tecaive "Look the out has returned with poet"
						erchanted flower	5	garden near het spring	politenera's house	"most be the recipe for the curr"

Interactive Design



Player UI -- in flight Y to call out inventory X to close

A to view detail



Actual Interaction in Game



Flight Experience



