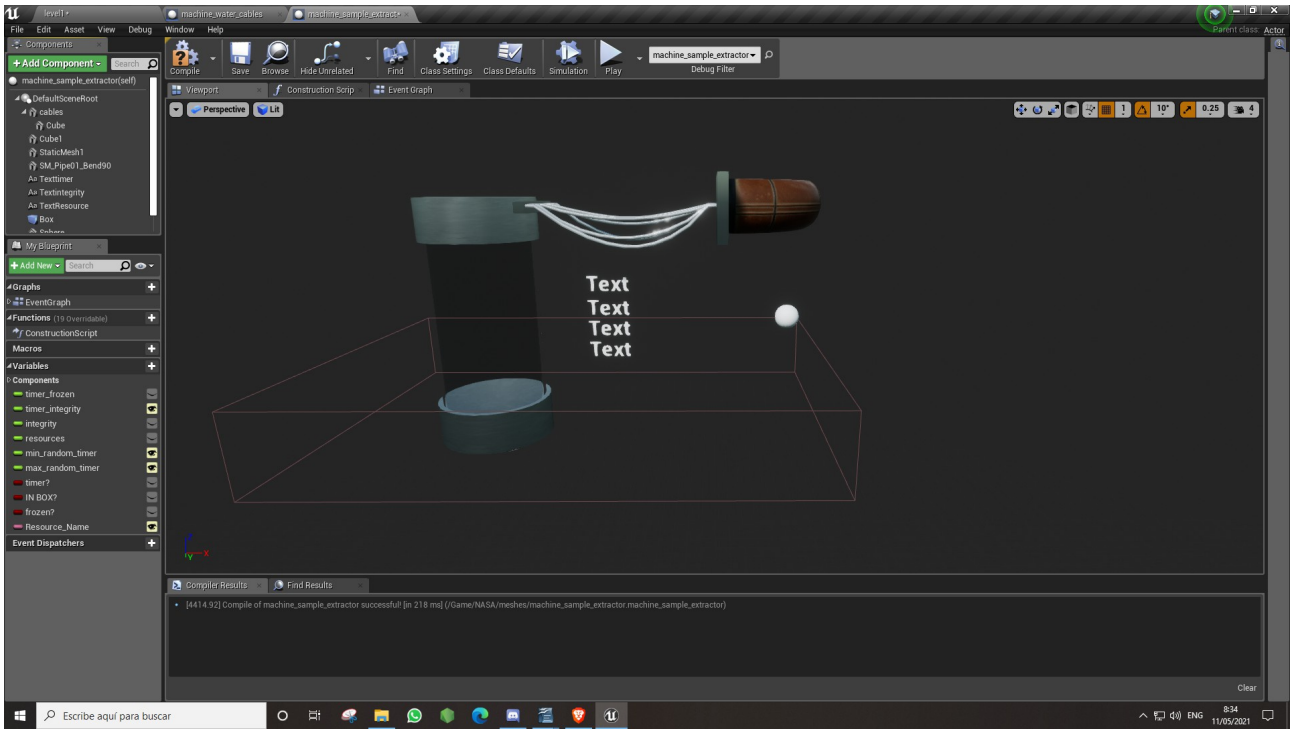
Resources Gathering BP

A concept on the Mars simulation is to collect resources from Mars for the development of the colony, many games already exist with the premise of farming and gather different kind of resources for both build and eat, with that idea in mind was made a blueprint to gather water.

For the concept was placed the next rules:

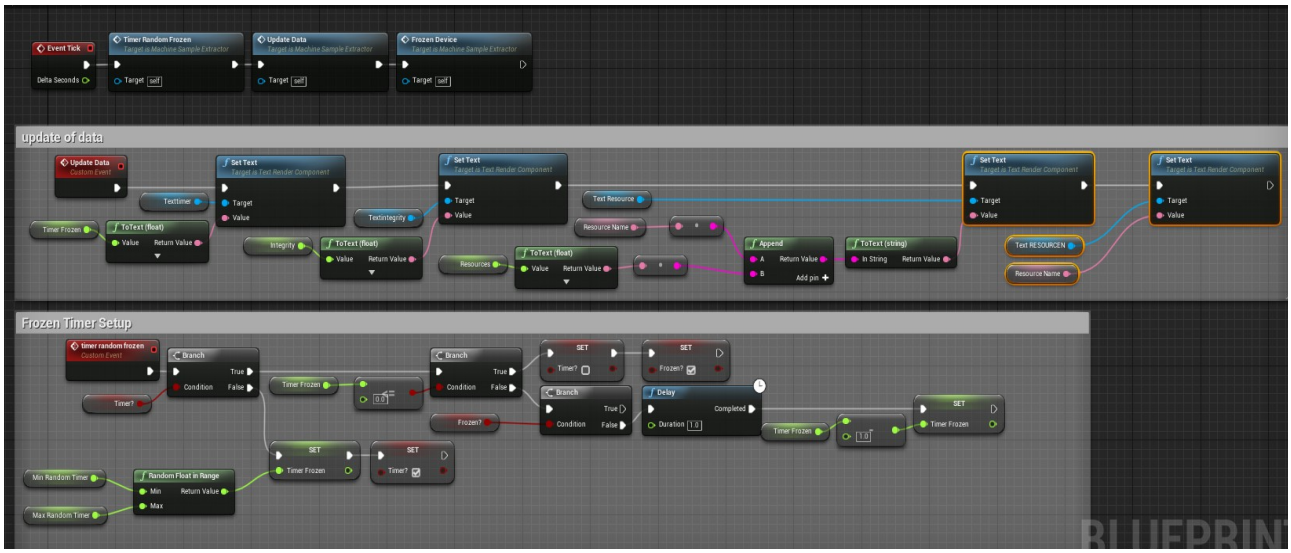
1. By an amount of time T (x.xxx Seconds) will start and accumulate resources.
2. Will keep collecting until it reaches the limit (Example 100) then it will stop.
3. Until is collected and empty the container of the resource gatherer will not be getting more.
4. A timer will be set to simulate a malfunction (in case of water getting frozen the pipes) that will stop the process to gather the resources and will need to be fixed or reset.
5. Interaction for the fixes on the resource gatherer will resume the progress before the malfunction.

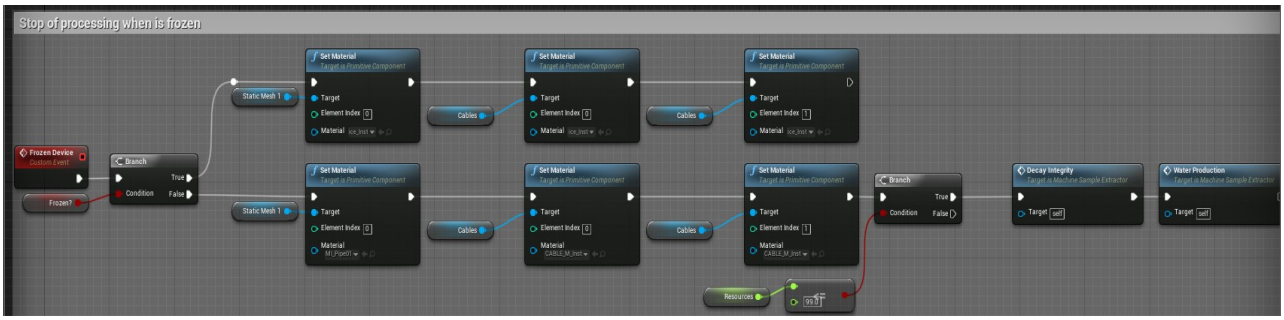
With the design of the blueprint was used geometry shapes (cylinder) and some free assets from the Unreal Engine Marketplace.

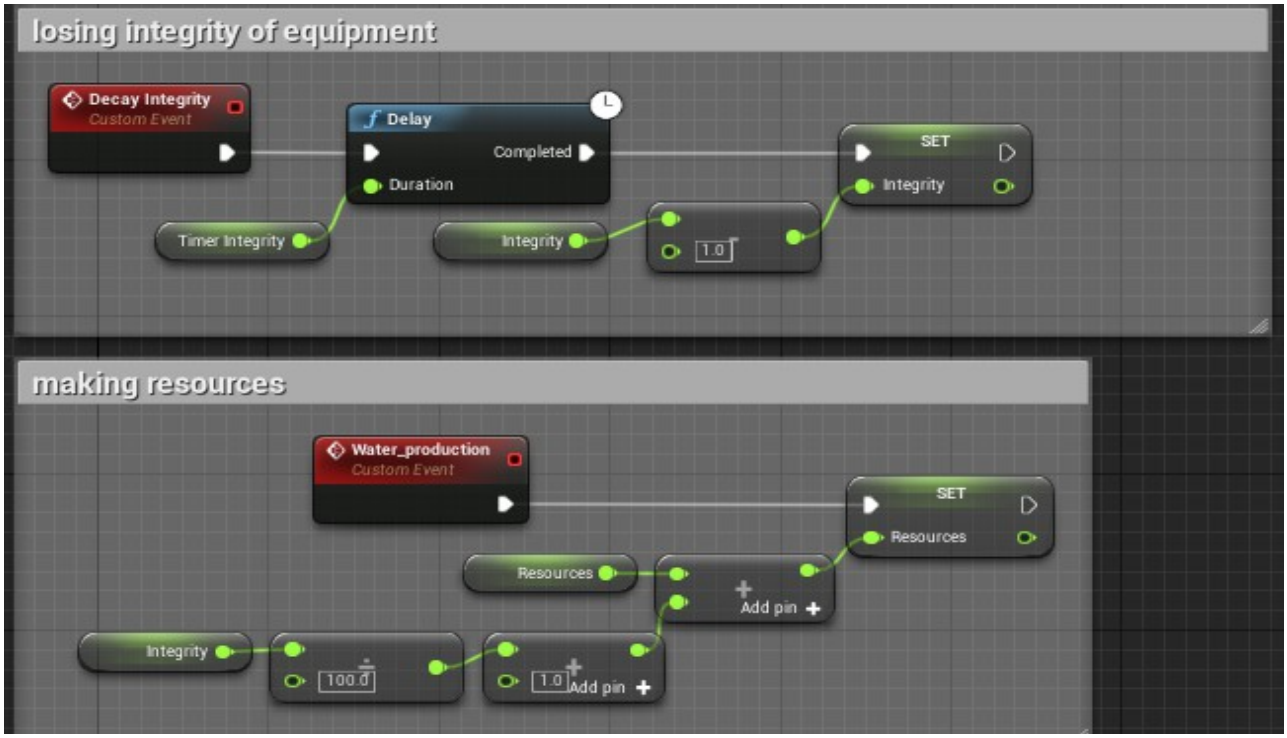


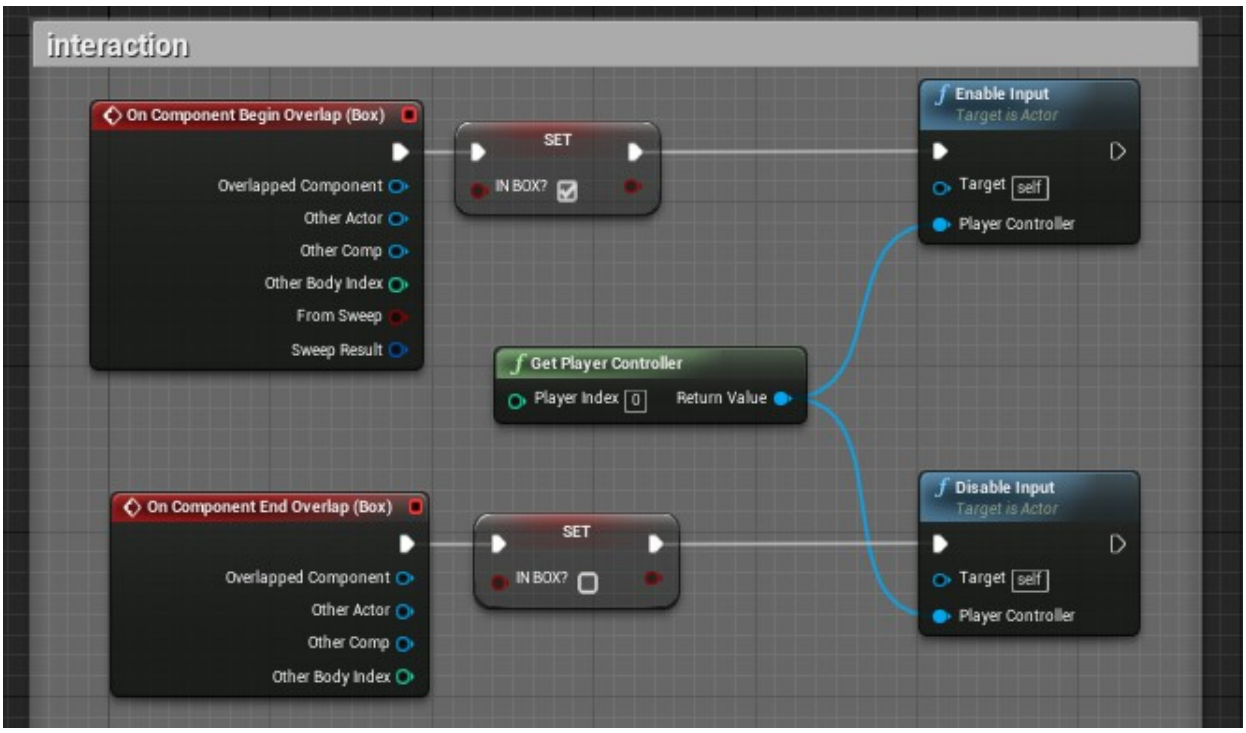
For the variables to work this blueprint have been floats, bools and text listed down below

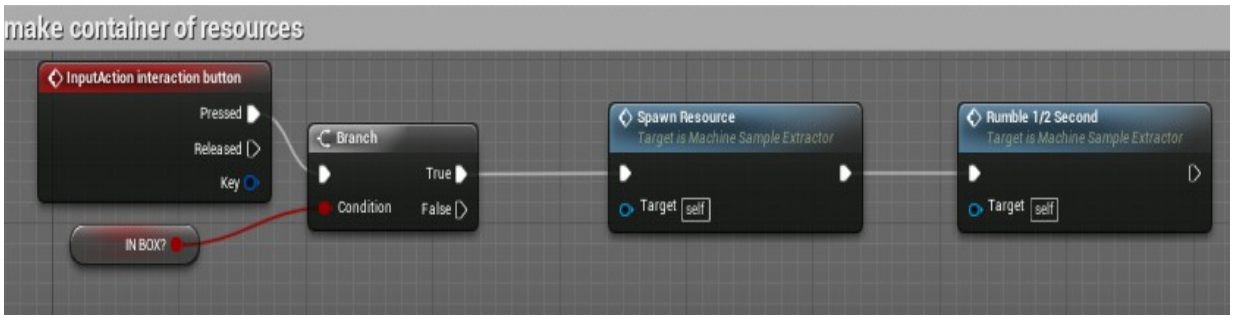
Name	Type	Purpose	Example
timer_frozen	float	Countdown for malfunction	30,5
timer_integrity	float	Loss of integrity over time	3,5
integrity	float	Current integrity of the device affected by previous float	99,8
resources	float	Ammount gathered by the machine	99,99
min_random timer	float	Minimum time to get malfunction	15
max_random_timer	float	Maximum time to get malfunction	95
Timer?	bool	Check when the malfunction is true to stop gathering	False
IN BOX?	bool	Check if player is close enough to interact	True
Resource_Name	Text	Name of specific resource	Sand from Mars

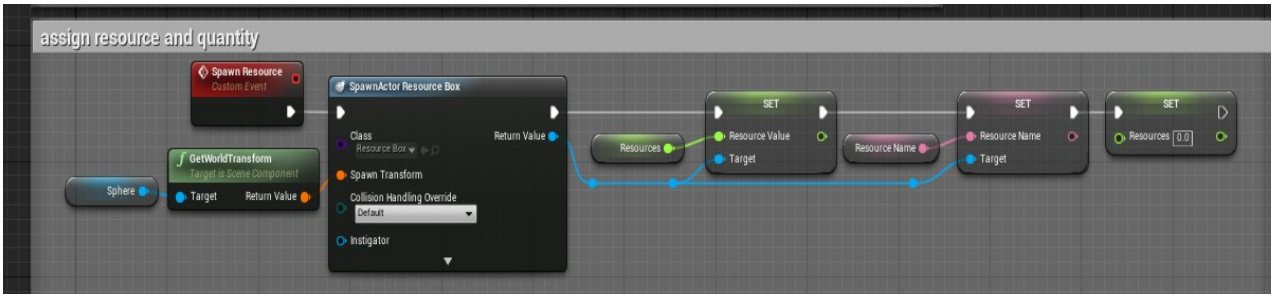

update of data
Frozen Timer Setup

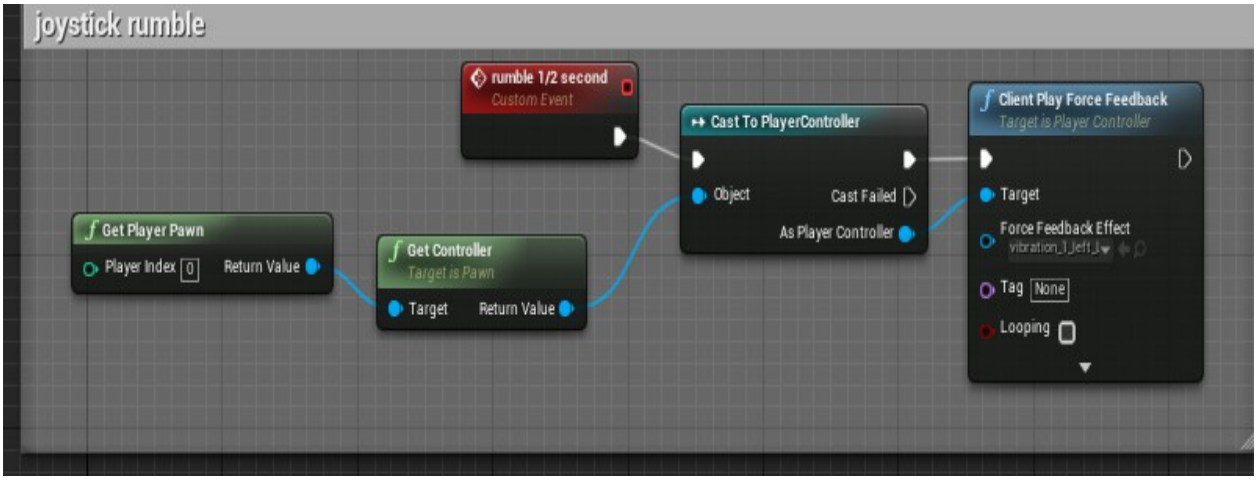

Stop of processing when is frozen


losing integrity of equipment
Decay Integrity
Custom Event
Delay
Duration
Completed
SET
Integrity
Timer Integrity
Integrity
1.0
making resources
Water_production
Custom Event
SET
Resources
Resources
Add pin
Integrity
100.0
1.0
Add pin


interaction
On Component Begin Overlap (Box)
Overlapped Component
Other Actor
Other Comp
Other Body Index
From Sweep
Sweep Result
SET
IN BOX?
Enable Input
Target is Actor
Target
self
Player Controller
Get Player Controller
Player Index
0
Return Value
On Component End Overlap (Box)
Overlapped Component
Other Actor
Other Comp
Other Body Index
SET
IN BOX?
Disable Input
Target is Actor
Target
self
Player Controller


make container of resources
InputAction interaction button
Pressed
Released
Key
IN BOX?
Branch
Condition
True
False
Spawn Resource
Target is Machine Sample Extractor
Target
self
Rumble 1/2 Second
Target is Machine Sample Extractor
Target
self


assign resource and quantity
Spawn Resource
Custom Event
SpawnActor Resource Box
Class
Resource Box
Return Value
Spawn Transform
Collision Handling Override
Default
Instigator
GetWorldTransform
Target is Scene Component
Target
Return Value
Sphere
Resources
SET
Resource Value
Target
Resource Name
SET
Resource Name
Target
SET
Resources
0.0


joystick rumble
rumble 1/2 second
Custom Event
Cast To PlayerController
Object
Cast Failed
As Player Controller
Client Play Force Feedback
Target is Player Controller
Target
Force Feedback Effect
Tag
None
Looping
Get Player Pawn
Player Index
0
Return Value
Get Controller
Target is Pawn
Target
Return Value