Plane Systems

# Plane Creation and Customization

## Create-a-plane (BIG)

A big part of Skybound will be the ability for the Content team to create planes that fly differently with different discreet “parts”. This requires us to split up the plane into “parts”, add part-specific variables to them, and allow them to be individually edited.

Parts are probably things like: wings, ailerons, body type (wind resistance?), weight, carburetor, fuel injectors, engine type.

## Upgrades

Eventually these parts should be able to be “replaced”, by performing an action such as purchasing an upgraded part from a store.

## Durability/Degradation

Applies to each “Part” of the plane. As Durability on each part decreases, its effectiveness should decrease and allow for a “Crisis” to have a higher chance of occurring.

A “Crisis” caused by low durability should be tied directly to the part. For example, you shouldn’t get an oil leak if your wing is low on durability, only the engine.

# Flying

## Takeoff

I honestly don’t know a whole lot about this. I would hope that the flight model “just works” with this to some extent. I think the GTAV takeoff, while really simple, may be a pretty good starting point for us to target.

<https://en.wikipedia.org/wiki/Takeoff>

## Landing

Again I’m not very clear on just what will and wont work with the flight model here.

I imagine we have to make sure the plane is going below a certain speed, otherwise hitting the ground going too fast will damage the plane considerably.

We will eventually want a “landing gear” toggle on the controller as well and take that into account.

Pilotwings for SNES had a good feeling landing that had some nice bounces and you really felt the damage on the plane when you descended too fast.

<http://emulator.online/snes/pilotwings/>

GTAV had some nice moments of “bounciness” on the landing, hitting the ground and popping back up in to the air briefly. I imagine this is mostly due to aircraft speed.