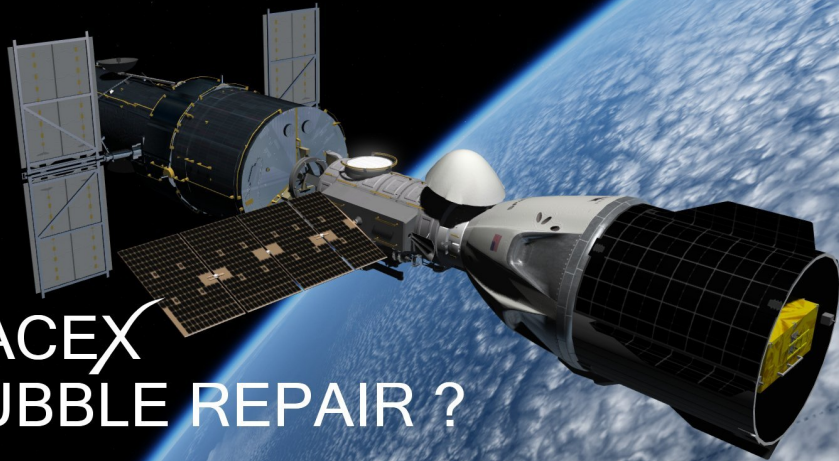


S_{ervice}

A_{ir}

L_{ock}

SPACEX
HUBBLE REPAIR ?





You need the following add-ons to use the Scenarios contained in this Add-on.

Required add-ons:

Crew Dragon for Orbiter2016

<https://www.orbithangar.com/searchid.php?ID=7198>

Falcon9 for Orbiter2016

<https://www.orbithangar.com/searchid.php?ID=7091>

HST(EX) for Orbiter2016

<https://www.orbithangar.com/searchid.php?ID=7233>

LC39A SpaceX (optional launch pad)

<https://www.orbithangar.com/searchid.php?ID=7090>

SpaceCraft 4

<http://francophone.dansteph.com/?page=addon&id=202&language=english>

GenericVessel

<http://thespaceway.org/files/dw.php?id=18>

Credits :

Brian Jones,
Coding and Technical support

Colin McGlothlin "Felix24",
EVA guys and SAL Texturing

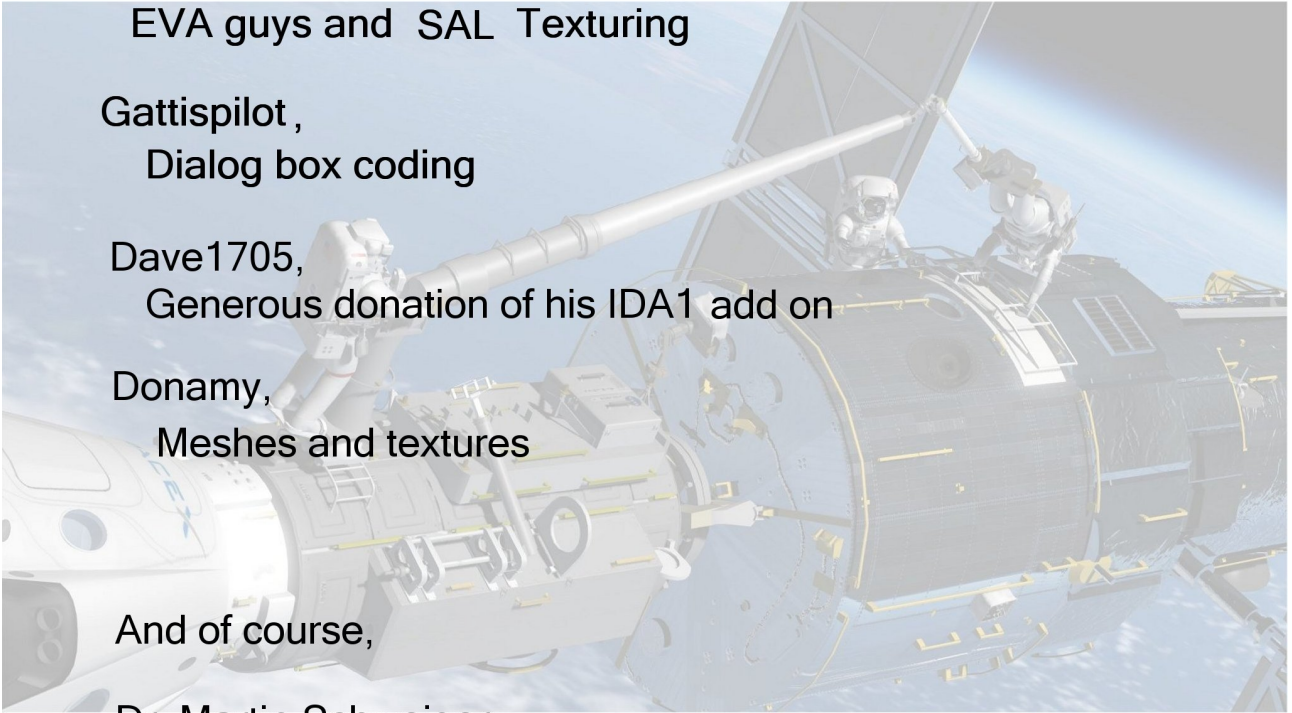
Gattispilot ,
Dialog box coding

Dave1705,
Generous donation of his IDA1 add on

Donamy,
Meshes and textures

And of course,

Dr. Martin Schweiger
Orbiter Spaceflight Sim creator



While focused on the Falcon9DRG, maneuver the vessel to align the planes with the falcon9SAL. After aligning planes, press "J" to separate the Dragon2 from the stage 2.

Set focus on the Falcon9SAL , press "J" to separate the SAL from it's stage 2. Press the "K" key to deploy the solar array. Press "G" to deploy the docking collar if it is not already. Don't forget to de-orbit both stage 2s.

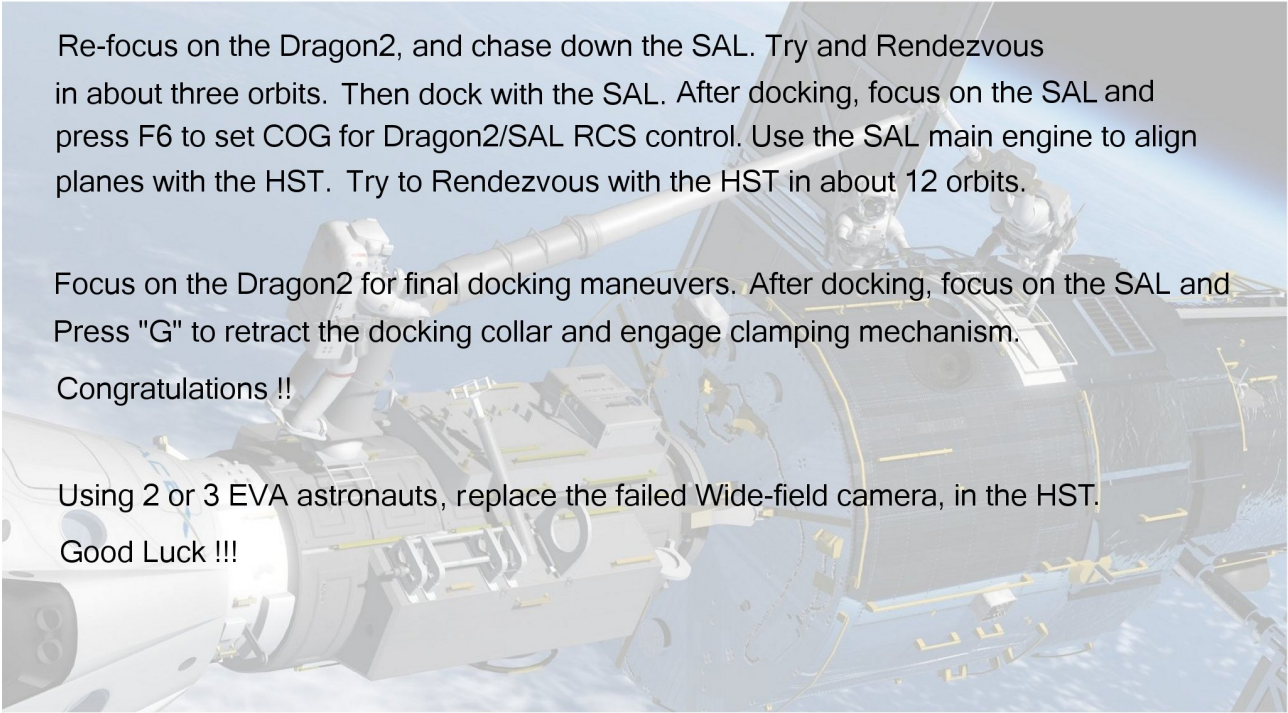
Re-focus on the Dragon2, and chase down the SAL. Try and Rendezvous in about three orbits. Then dock with the SAL. After docking, focus on the SAL and press F6 to set COG for Dragon2/SAL RCS control. Use the SAL main engine to align planes with the HST. Try to Rendezvous with the HST in about 12 orbits.

Focus on the Dragon2 for final docking maneuvers. After docking, focus on the SAL and Press "G" to retract the docking collar and engage clamping mechanism.

Congratulations !!

Using 2 or 3 EVA astronauts, replace the failed Wide-field camera, in the HST.

Good Luck !!!



To Start, run the "Dragon2_SAL Launch to HST" scenario.

While on the pad, open the Falcon9 Launch Panel by pressing "K"

Set both the Falcon9DRG and Falcon9SAL to Launch at 13:00:00.

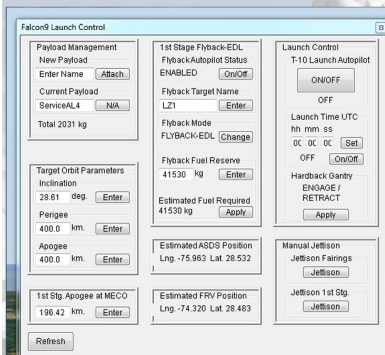
See the Falcon9 required add-ons to learn how do do this.

Sit back and enjoy the launch.

Be sure to focus on the different vessels after seperation.

Watch the stage 1 boosters fly back and land at Lading Zones 1 and 2

Amazing work by Brian !!!!!



The image shows a screenshot of a Falcon9 Launch Control interface overlaid on a 3D simulation of a launch pad. The interface is divided into several sections: Payload Management, 1st Stage Flyback-EDL, Launch Control, Target Orbit Parameters, Estimated ASDS Position, Manual Jettison, 1st Stg. Apogee at MECO, Estimated FRV Position, and Jettison 1st Stg. The background shows a launch pad with a rocket being mated to the Mobile Launcher Platform (MLP) by a crane. The landscape is a mix of green fields and blue water.

Payload Management	
New Payload	Attach
Enter Name	Enter
Current Payload	N/A
Service4L4	N/A
Total 2031 kg	

1st Stage Flyback-EDL	
Flyback Autopilot Status	ENABLED
Flyback Target Name	LZ1
Flyback Mode	FLYBACK-EDL
Flyback Fuel Reserve	41530 kg
Estimated Fuel Required	41530 kg
Estimated ASDS Position	Lng -75.963 Lat 28.532
Estimated FRV Position	Lng -74.320 Lat 28.483

Launch Control	
T-10 Launch Autopilot	ON/OFF
Launch Time UTC	hh mm ss
OC OC OC	Set
Hardback Gantry	ENOA/OE / RETRACT
Manual Jettison	Jettison Fairings
Jettison 1st Stg.	Jettison

Target Orbit Parameters	
Inclination	28.61 deg
Perigee	400.0 km
Apogee	400.0 km
1st Stg. Apogee at MECO	196.42 km

Refresh



Service Air Lock (SAL) Control :

[G] = Extend/Enable Docking Ring

[3] = Open Cloth Hatch

[N/M] = Rotate Docking Ring

[4] = Open Boom Bracket

[J] = Jettison

[5] = Open External Hatch

[V/B] = Translate STRELA

[6] = Open Tool Boxes

[F5] = Show/Hide Grapple Points

[7] = Open Inner Hatch

[L] = Beacon On/Off

[E] = Spawn EVA (max.3)

[1] = Open OTD Carrier

[K] = Solar Array Tracking/Lock

[2] = Stow STRELA

[F6] = Link RCS/Main to Dragon: On/Off

Attachments :

Parent

0 = Docking Ring

1 = StrelaCrane

2 = WIF1

3 = WIF2

4 = Toolbox WIF

5 = Inside Toolbox

6 = NewOTD Stow

7 = Tool_PFR1 Stow

8 = NewAPFR1 Stow

9 = NewStrelaBoom Stow

10 = NewStrelaBase Stow

11 = WIF3

12 = WIF4

13 = EVA1 Tether

14 = EVA2 Tether

15 = EVA3 Tether

Child

0 = To Falcon9

EVA guys:

[L] = Spotlight On/Off

[F10] = Acquire Tool_Caddy

[G] = Right Hand Grab/Release

[F11] = Set L/R Hand Loose/ Snap-to

[K] = Left Hand Grab/Release

[N] = Tether/Release

[E] = End EVA

[V] = Visor Up/Down

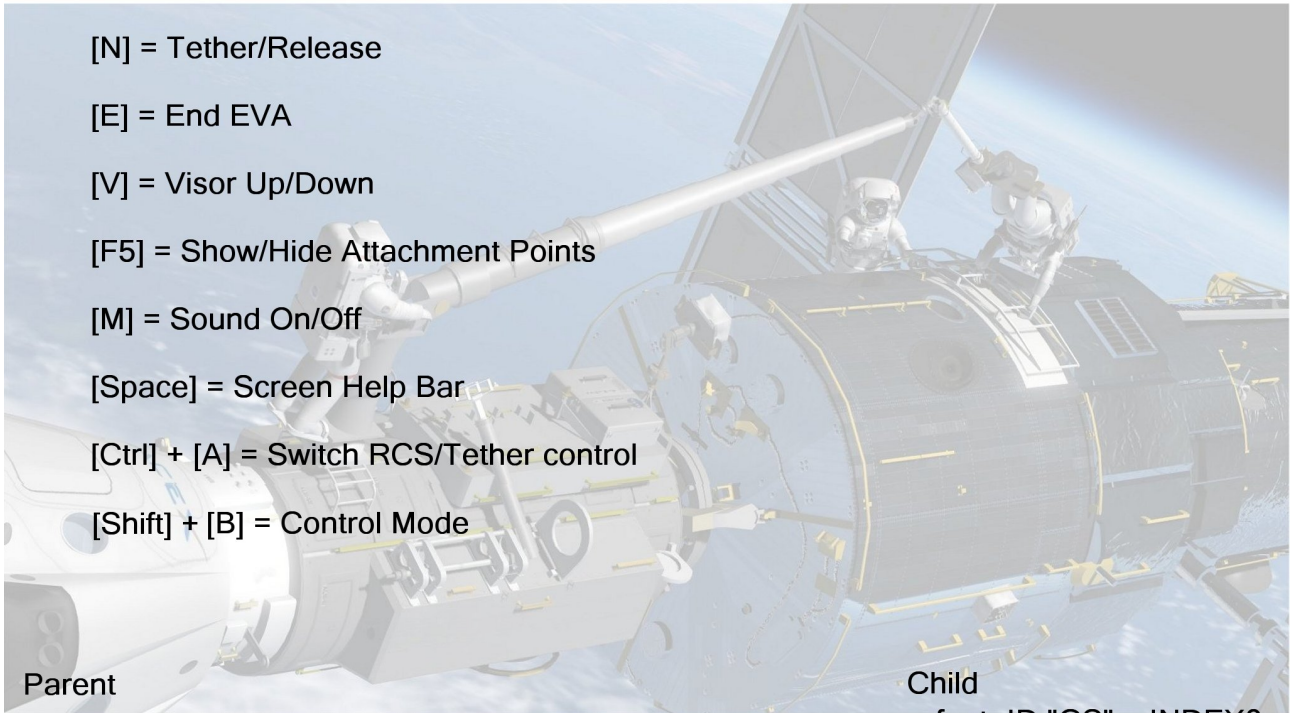
[F5] = Show/Hide Attachment Points

[M] = Sound On/Off

[Space] = Screen Help Bar

[Ctrl] + [A] = Switch RCS/Tether control

[Shift] + [B] = Control Mode



Parent

Child

mmws1	ID "GS"	INDEX0	F10 spawn "Utility Item" attach point	foot	ID "GS"	INDEX0
mmws2	ID "GS"	INDEX1		cog	ID "GS"	INDEX1
l/hand	ID "GS"	INDEX2	Manual Grapple to ID "EVA"			
r/hand	ID "GS"	INDEX3	Manual Grapple to ID "EVA"			

Modes :

Body Control :

[Shift] [1] = L.Ankle

[Shift] [2] = L.Knee

[Shift] [3] = Waist Pitch

[Shift] [4] = Waist Roll

[Shift] [5] = Waist Yaw

Right Leg Control :

[Shift] [1] = R.Hip

[Shift] [2] = R.Knee

[Shift] [3] = R.Ankle

L/R Arm Control

[Shift] [1] = Swing

[Shift] [2] = Raise

[Shift] [3] = Roll

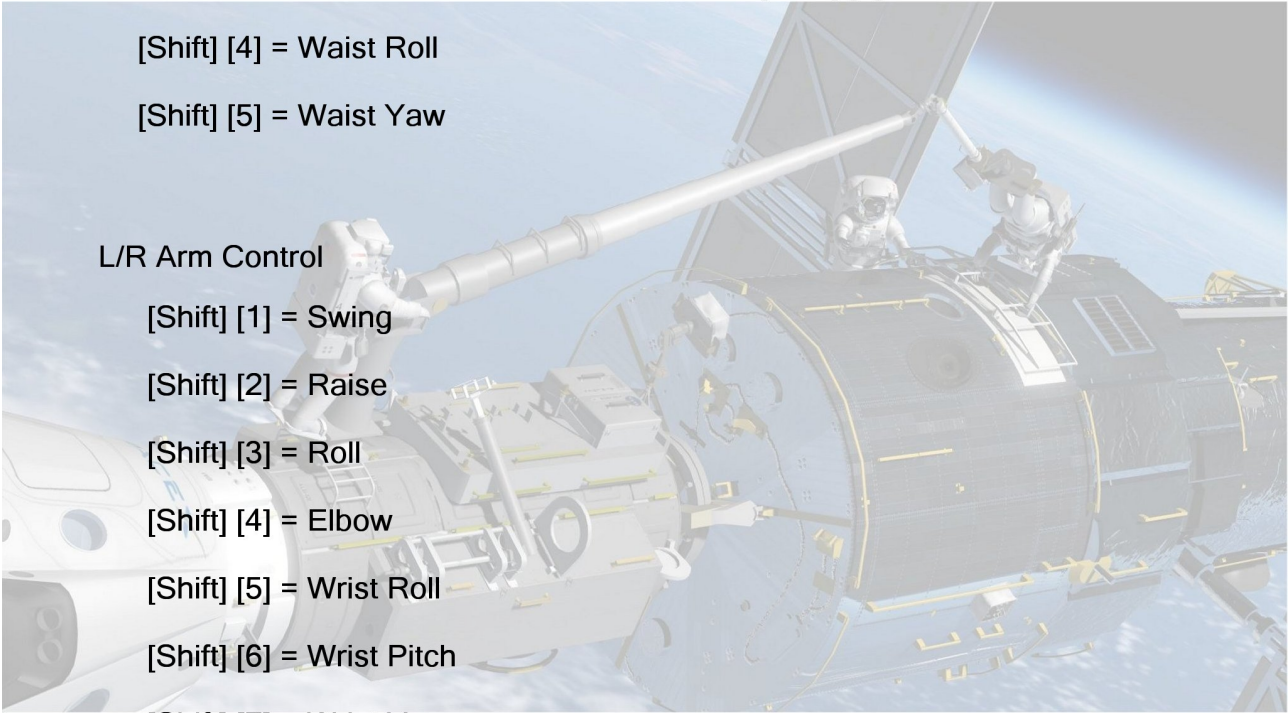
[Shift] [4] = Elbow

[Shift] [5] = Wrist Roll

[Shift] [6] = Wrist Pitch

[Shift] [7] = Wrist Yaw

[Shift] [8] = Hand Grab



EVA guys motion :

Tethered :

cursor keys



= Move left



= Move right



= Move up



= Move down

Insert

= Forward

Delete

= Backward

4

= Roll left

6

= Roll right

1

= Yaw left

3

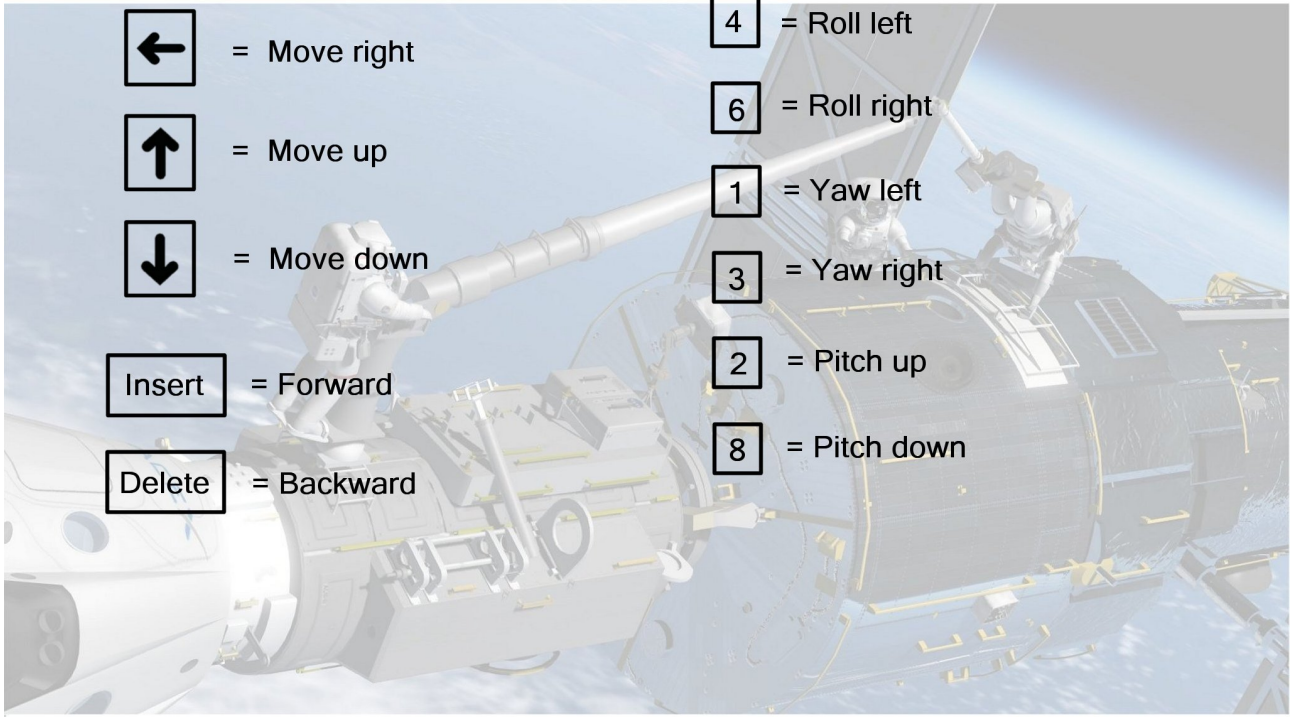
= Yaw right

2

= Pitch up

8

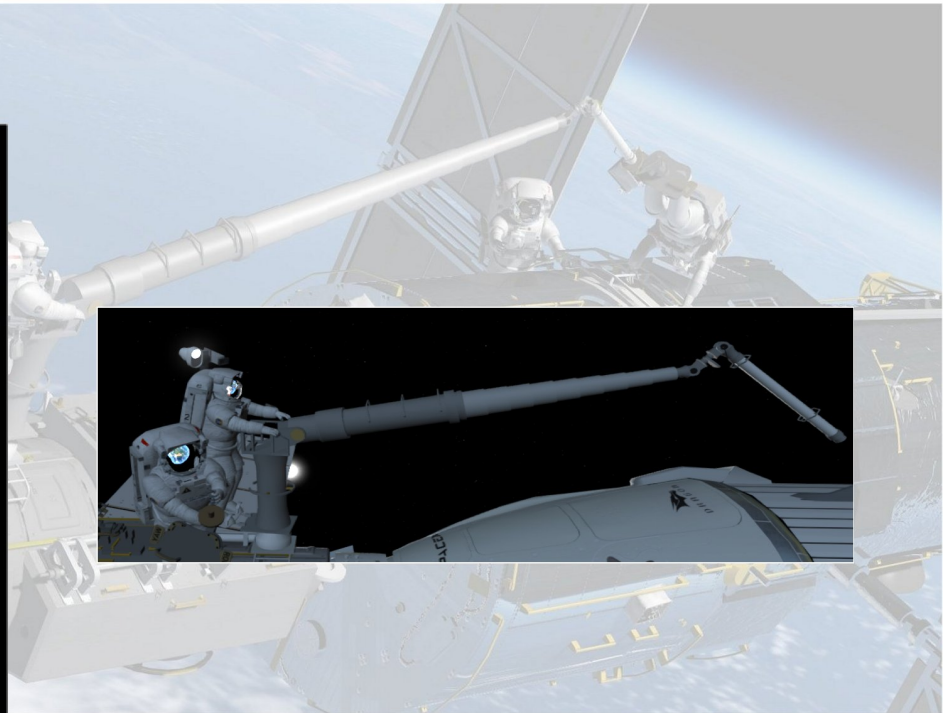
= Pitch down



STRELACRANE Dialog Box :

[Ctrl] + [Space] = Display Dialog Box

Can be controlled
remotely from
another vessel.



NewOTD:

Animations :

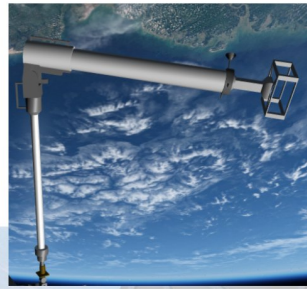
[K] = Rotate on WIF

Robotics_1:

Seq_0 = Boom Pitch

Seq_1 = Rotate Attachment

Seq_2 = Boom Extend



Attachments

Parent

0 = WFC Temporary Stow attach

Child

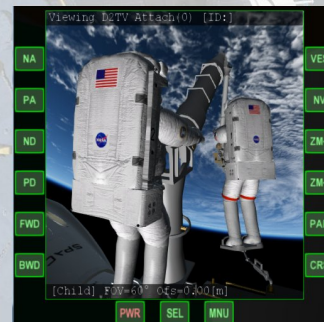
0 = Attach to WIF

1 = Hand ID="EVA"

2 = To OTD Carrier

D2tv :

Control remotely
while focused on
another vessel,
or inside the VC.



D2TVArm Control :

Animations :

Robotics 1:

Seq_0 = WIF Pivot

Seq_1 = Yaw

Seq_2 = Roll

Seq_3 = Pitch

Attachments:

Parent

0 = To D2TV

Child

0 = To WIF

PFR :

Animations:

Robotics 1:

Seq_0 = WIF Rotate

Seq_1 = Pitch Arm

Seq_2 = Rotate Arm

Seq_3 = FR Pitch

Seq_4 = FR Yaw



Attachments:

Parent

0 = Foot Restraint

Child

0 = Wif Attach ID="WIF"

1 = Hand ID="EVA"

Tool_PFR:

Animations:

Robotics 1:

Seq_0 = WIF Rotate
Seq_1 = FR Pitch
Seq_2 = Tool Arm rotate
Seq_3 = FR Roll
Seq_4 = FR Yaw

Robotics 2:

Seq_5 = ToolHead Rotate

Attachments:

Parent

0 = Foot Restraint

1 = Tool bag

Child

0 = Wif Attach ID="WIF"

1 = Hand ID="EVA"

