1
00:00:02,210 --> 00:00:04,370
Good morning, and welcome
to Mission Control Houston.

2
00:00:04,370 --> 00:00:07,890
We're inside the International
Space Station flight control room,

3
00:00:07,890 --> 00:00:10,340
where the team is monitoring
systems aboard station.

4
00:00:10,340 --> 00:00:14,280
This is the ISS Update on Thursday, September 1.

5
00:00:17,540 --> 00:00:22,580
The team is following along with the
activities of the Expedition 28 crew members.

6
00:00:22,580 --> 00:00:26,050
Six crew members on board the station
are working through the early afternoon

7
00:00:26,050 --> 00:00:32,840
of their day aboard the complex, focusing
on science experiments and maintenance work.

8
00:00:36,150 --> 00:00:40,930
One of those science experiments or
payloads is actually an educational activity

9
00:00:40,930 --> 00:00:45,900
that Japan Aerospace Exploration Agency
astronaut Satoshi Furukawa was working

10
00:00:45,900 --> 00:00:46,900
on earlier this morning.

11
00:00:46,900 --> 00:00:48,550

It's called LEGO Bricks.

12
00:00:48,550 --> 00:00:54,190
It's part of a partnership with LEGO,
and it includes a series of toy LEGO kits

13
00:00:54,190 --> 00:00:59,640
that are assembled on board the space station
and used to demonstrate scientific concepts.

14
00:00:59,640 --> 00:01:04,310
Some of the models include satellites,
space shuttle orbiter and a scale model

15
00:01:04,310 --> 00:01:06,670
of the International Space Station.

16
00:01:06,670 --> 00:01:13,830
The work that Furukawa was doing this morning
involved putting together an example of a living

17
00:01:13,830 --> 00:01:19,980
and working space on board the station so
that he could talk to students about what it's

18
00:01:19,980 --> 00:01:22,390
like to live and work on board the station.

19
00:01:22,390 --> 00:01:27,470
And that video is provided through
NASA Education to young children

20
00:01:27,470 --> 00:01:30,220
between four and eight years old.

21
00:01:30,220 --> 00:01:34,670
That is part of a three-year agreement
with LEGO that will use the inspiration

22

00:01:34,670 --> 00:01:40,420
of NASA's space exploration missions and
the appeal of the popular LEGO bricks

23
00:01:40,420 --> 00:01:45,830
to spur children's interest in science and
technology and engineering and math fields.

24
00:01:47,050 --> 00:01:53,440
After that Furukawa joined NASA astronaut Mike
Fossum with his work with the Robonaut on board.

25
00:01:53,440 --> 00:01:58,850
There was a checkout scheduled this morning
for Robonaut 2, or R2 as it's called.

26
00:01:58,850 --> 00:02:02,870
It was to check out some of
the sensors in the Robonaut

27
00:02:02,870 --> 00:02:06,890
and also do the first motion of the robot.

28
00:02:06,890 --> 00:02:15,540
There were some commanding issues
that were associated with that work,

29
00:02:15,540 --> 00:02:20,250
and so Robonaut was not actually moved this
morning, but a lot of information was gathered,

30
00:02:20,250 --> 00:02:28,230
being able to work through the systems and the
operations of a Robonaut on board the station

31
00:02:28,230 --> 00:02:31,580
as part of a technology demonstration.

32
00:02:33,230 --> 00:02:39,940
The Robonaut is the first human-like

robot in space and a permanent resident

33
00:02:39,940 --> 00:02:42,350
of the International Space Station.

34
00:02:42,350 --> 00:02:47,160
It was developed jointly by NASA and
General Motors under a cooperative agreement

35
00:02:47,160 --> 00:02:52,670
to develop a robotic assistant that can work
alongside humans whether they are astronauts

36
00:02:52,670 --> 00:03:02,430
in space or workers at GM
manufacturing plants on Earth.

37
00:03:02,430 --> 00:03:06,510
Other science activities
include using the cameras

38
00:03:06,510 --> 00:03:08,920
on board the station to observe the Earth.

39
00:03:08,920 --> 00:03:13,040
The crew members have targets of
opportunity to take a look at as part

40
00:03:13,040 --> 00:03:18,140
of the Crew Earth Observations, but
also the video cameras on the outside

41
00:03:18,140 --> 00:03:20,880
of the station can be commanded
by the team here on the ground.

42
00:03:20,880 --> 00:03:25,860
And those have been looking at tropical
storms and hurricanes this season,

43
00:03:25,860 --> 00:03:32,790
again capturing views of Hurricane Katia
as it churns over the Atlantic Ocean.

44
00:03:32,790 --> 00:03:42,660
Also commanded from the mission control team, by
the mission control team, is the Dextre robot,

45
00:03:42,660 --> 00:03:45,600
which is on the outside of the
International Space Station.

46
00:03:45,600 --> 00:03:51,130
That has been in motion this week for
a maintenance activity on the outside

47
00:03:51,130 --> 00:03:56,460
of the complex earlier this week, removing
and replacing a failed circuit breaker box,

48
00:03:56,460 --> 00:04:00,220
which was the first maintenance
activity for that robot.

49
00:04:00,220 --> 00:04:07,940
The work continuing on later today by the
team will be to close or move the container

50
00:04:07,940 --> 00:04:14,010
that had the new spare circuit breaker
box in it and now has the failed one in.

51
00:04:14,010 --> 00:04:17,750
And also the Robotic Refueling Mission module.

52
00:04:17,750 --> 00:04:23,090
Those two components have been on
Dextre the robot and will be moved

53

00:04:23,090 --> 00:04:26,210
to the Express Logistics Carrier number four.

54
00:04:26,210 --> 00:04:32,240
That will be the permanent platform for that
Robotic Refueling Mission, which was delivered

55
00:04:32,240 --> 00:04:38,000
to the space station by a space
shuttle earlier this year.

56
00:04:38,000 --> 00:04:45,310
That experiment is a joint effort between NASA
and the Canadian Space Agency and is designed

57
00:04:45,310 --> 00:04:48,700
to demonstrate the technologies,
tools and techniques needed