

Women and Men Collaborating with Robots on Assembly Lines:

Designing A Novel Evaluation Scenario For
Collocated Human-Robot Teamwork

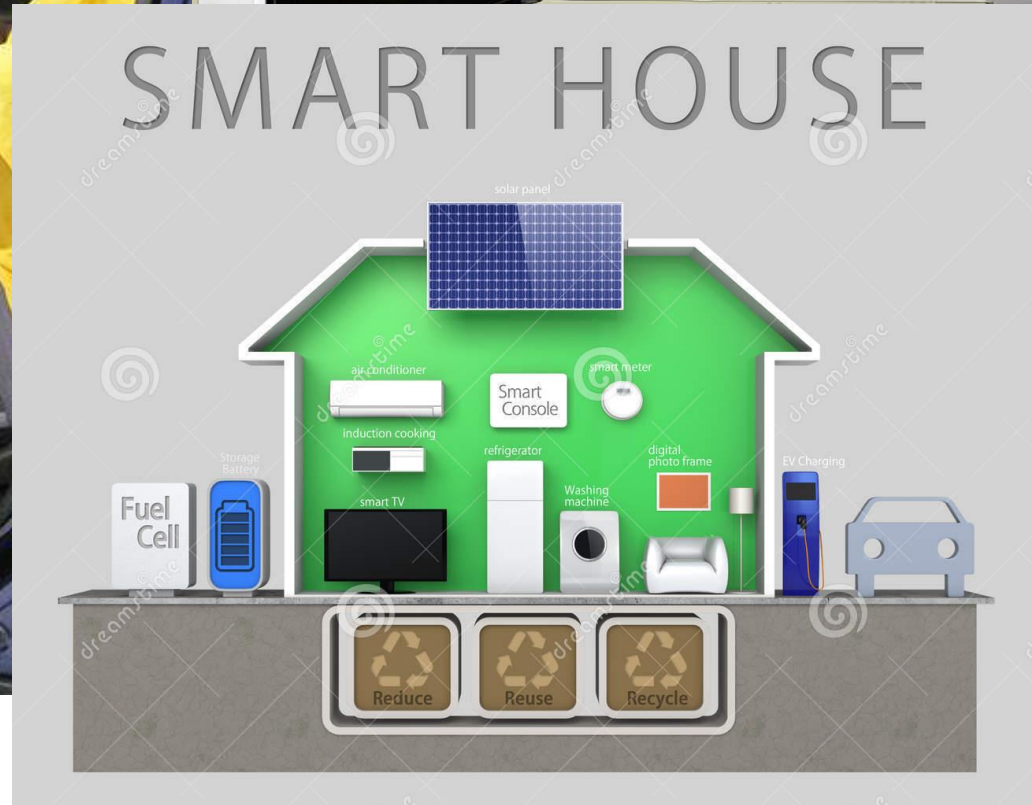
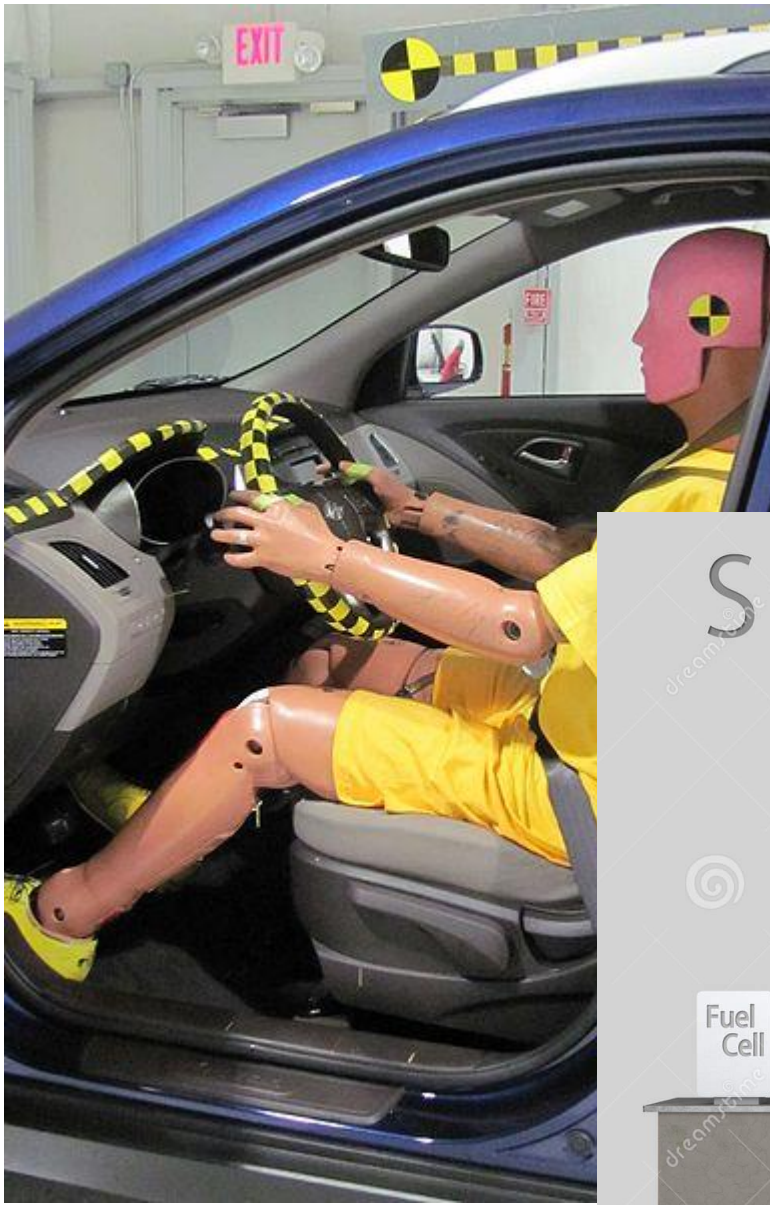
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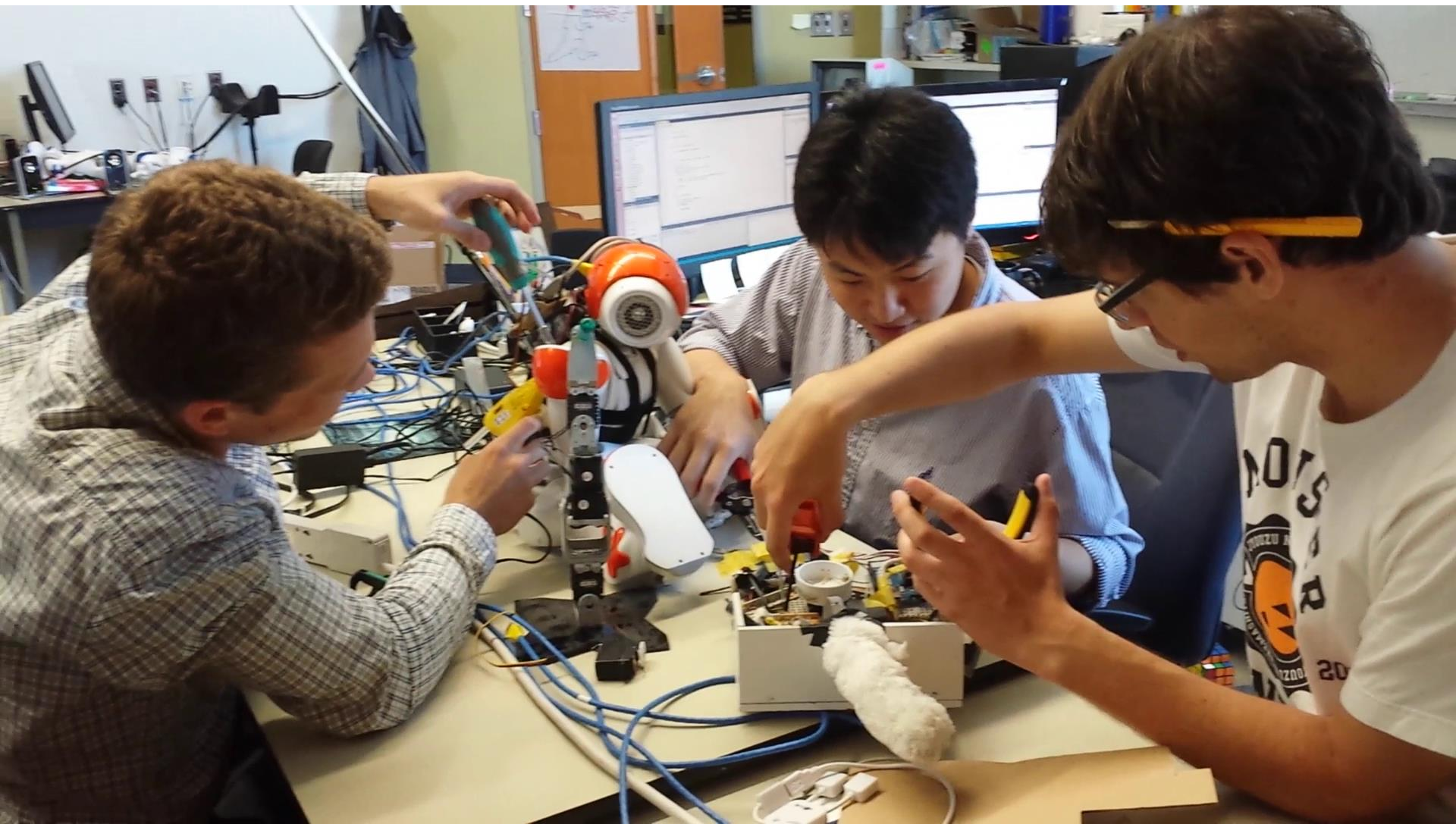
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Do women and men work differently with a robot on assembly lines?

challenges

we need a plausible task

social interaction

capability of robot

gender difference

task – product inspection



task – product inspection





social situations

robot makes a mistake

opportunity for small talk

praise and criticism

touch

social situation – mistake



social situation – small talk



social situation – praise



social situation – criticism



social situation – touch





pilot study

10 first- and second- year sociology students

4 male

6 female

Do people engage the
robot socially?





People attempt to build rapport with the robot.

So, what's your name?



Do you remember
my name?



We gonna work
as a team



Do you like doing this job?



Do you know
any jokes?



How old are
you?



Are you a girl
or boy?



You are doing a great
job, thank you

You are doing a
great job, thank you



You are so smart.

You are doing a
great job, thank you



I am following you here

Can you please
hurry up? You are
being really slow



future work

enhance scenario

- feedback to robot

- opportunity for collaborative teaching

- camera angle to capture gestures

language

- male-normative

- female-normative

gestures

- lean toward

challenges for gender research in HRI

social situations for exploration

scenario with a plausible task

challenges for gender research in HRI

social situations for exploration

scenario with a plausible task

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Behavior List

animations/SetOnPod/BodyTalk/Listening/Listening_1
 animations/SetOnPod/BodyTalk/Listening/Listening_2
 animations/SetOnPod/BodyTalk/Listening/Listening_3
 animations/SetOnPod/BodyTalk/Listening/Listening_4
 animations/SetOnPod/BodyTalk/Listening/Listening_5
 animations/SetOnPod/BodyTalk/Listening/Listening_6
 animations/SetOnPod/BodyTalk/Listening/Listening_7
 animations/SetOnPod/BodyTalk/Listening/Listening_8

Add to Queue

Motion List

Default_St
 Default_Stand
 Point_Myself
 Point_Myself_Left
 Point_Myself_Right
 Point_Front_Left
 Point_Front_Right
 Point_Left_Top
 Point_Right_Top
 (H) Hold and lift up

Add to Queue

Speech: 180PD+90, VCT+100, Can you hold it, (H)

Speech: 180PD+50, VCT+100, arms, 180D

Motion: Point_LeftBottom

Speech: 180PD+90, VCT+100, There is some

Speech: 180PD+90, VCT+100, Spray it and th

L12

Speech: 180PD+50, VCT+100, well, 180D

Motion: Point_LeftTop

Speech: 180PD+90, VCT+100, There is some

Speech: 180PD+90, VCT+100, Spray it and th

Stop playing Remove Selection

Clear History Clear All

00:09:20.8196884

MI **Reset**

Create Duty

Cur: Idle Randomize

Clear

Sanitize

Show Me Next

Pro. Good job

Crit. Hurry up

Mistake

Miscellaneous

Thank you

Sorry

Good

Can't see it

Move it closer

Move it further

Let's focus

Good enough

Take a break

Let's snack

Let's work

How's Weather?

Ans. Good Weather

Ans. Bad Weather

Ans. Why not

Get paid?

Ans. Yes, paid

Head (0, 0), Body (0, 0, 0)

Disconnect

Breath Off

Wake Rest

default pose

Speed: 80 Shaping: 100

Repeat Selection

Speak

