

communication protocol specification

concepts

- robot
 - god
 - emotion
 - intensity level
 - message
 - sms
-

- 7 robots and one god exchange messages
 - messages are String objects
 - 4 types of message are allowed: emotion, halt, sms, begin
 - messages must respect the format defined in this document
 - a robot can send emotion messages and begin messages
 - the god can send sms and halt messages
-

- an emotion message communicates that a robot has just started performing a non-idle emotion
 - a halt message orders all the robots to immediately stop performing and go back to their idle emotion
 - a sms message simulates a robot receiving a text on their mobile phone
 - a begin message communicates that a robot has just finished reading an sms out loud and the other robots can start reacting to it
-

scenario:

robot R receives sms from god, sms is directed toward R

response:

1. R reads the sms content out loud
 2. R sends a message communicating that it has finished reading
 3. R starts performing a non-idle emotion E as a reaction to the sms
 4. R sends a message communicating E to everyone else
 5. R finishes performing E
-

scenario:

robot R1 receives sms from god, sms is directed toward robot R2

response:

1. R1 turns its head to face R2
2. R1 waits for R2 to communicate that it has finished reading the sms content out loud

scenario:

robot R1 receives a begin message from robot R2, indicating that R2 has finished reading an sms and the other robots can start reacting

response:

1. R1 starts performing a non-idle emotion E1 as a reaction to the sms
 2. R1 sends a message communicating E1 to everyone else
 3. R1 finishes performing E1
-

scenario:

robot R1 receives a message indicating that robot R2 has finished performing a non-idle emotion E1, R1 wants to react

response:

1. R1 starts performing a non-idle emotion E3 as a reaction E2
 2. R1 sends a message communicating E3 to everyone else
 3. R1 finishes performing E3
-

scenario:

robot R1 receives a message saying that robot R2 has finished performing a non-idle emotion E1, R1 does not want to react

response:

no response

scenario:

robot R receives a halt message

response:

1. R1 performs idle emotion
-

additional rules:

- idle emotion is performed silently, only movement no sound
- a robot NEVER communicates its idle emotion to others
- no agreement on how to handle the reception of a message (emotion, halt, sms, begin) while performing a non-idle emotion: robot can react immediately or finish performing the emotion first
- no agreement on how to read messages out loud (text-to-speech, audio clip from the movie, etc.)
- no agreement on how to handle the reception of multiple emotion messages while performing a non-idle emotion
- no agreement on how to handle intensity level in received emotion messages
- performing a non-idle emotion never lasts more than 10 seconds

emotion (from another robot)

[1-7]
from

[B-L]
emotion

[0-7]
toward

[1-3]
intensity

6	C	7	1
---	---	---	---

1: Rocco

B: happy

0: everyone

1: low

2: Eva

C: angry

1: Rocco

2: medium

3: Lele

D: shocked

2: Eva

3: high

4: Carlotta

E: sad

3: Lele

5: Peppe

F: relaxed

4: Carlotta

6: Bianca

G: afraid

5: Peppe

7: Cosimo

H: cautious

6: Bianca

I: surprised

7: Cosimo

J: annoyed

K: embarrassed

L: anxious

halt (from god)

G	F
---	---

begin (from another robot)

G	G
---	---

sms (from god)

[1-E]
sms

G	7
---	---

code	to	from	sms	reaction
G1	[1]Rocco	Orizzonti Tour	The house in Salina is confirmed	[F]relaxed
G2	[1]Rocco	Sofia	You embarrassed me today when you gave me the condoms	[K]embarrassed
G3	[2]Eva	Plastic Surgeon	Good evening Eva. I'm the surgeon who operated on the enlargement of your breast. Are you doing okay with the new implants?	[L]anxious
G4	[2]Eva	Daughter	Hi mom, tonight I'm sleeping at a friend's house. See you tomorrow. Dad has already said it's ok.	[C]angry
G6	[3]Lele	Lucio	What are you doing? You're such an idiot! You know what the truth is? I don't think you even know if you like men or women!	[C]angry
G5	[3]Lele	Lucio	I miss your kisses so much.	[D]shocked
G7	[4]Carlotta	+39346237173	You got a new message from +39346237173. Dear Mrs De Rosa. We wanted to inform you that we have availability this month. Thank you for choosing us. Kind regards, Residence La Quiete	[L]anxious
G8	[4]Carlotta	Man	Did you... wear the panties tonight?	[L]anxious
G9	[5]Peppe	Fitness App	It's time for your workout!	[K]embarrassed

GA	[5]Peppe	Elisa Clementini	Nude	[K]embarrassed
GB	[6]Bianca	Ivano	"... I want to f**k"	[K]embarrassed
GC	[6]Bianca	Mom	I'll make you lasagne when you come with Cosimo this weekend	[C]happy
GD	[7]Cosimo	Maurizio Jeweller	Did your wife like the earrings?	[G]afraid
GE	[7]Cosimo	Marika	Hello love, I took the test and two lines appeared. I think I'm pregnant.	[D]shocked