

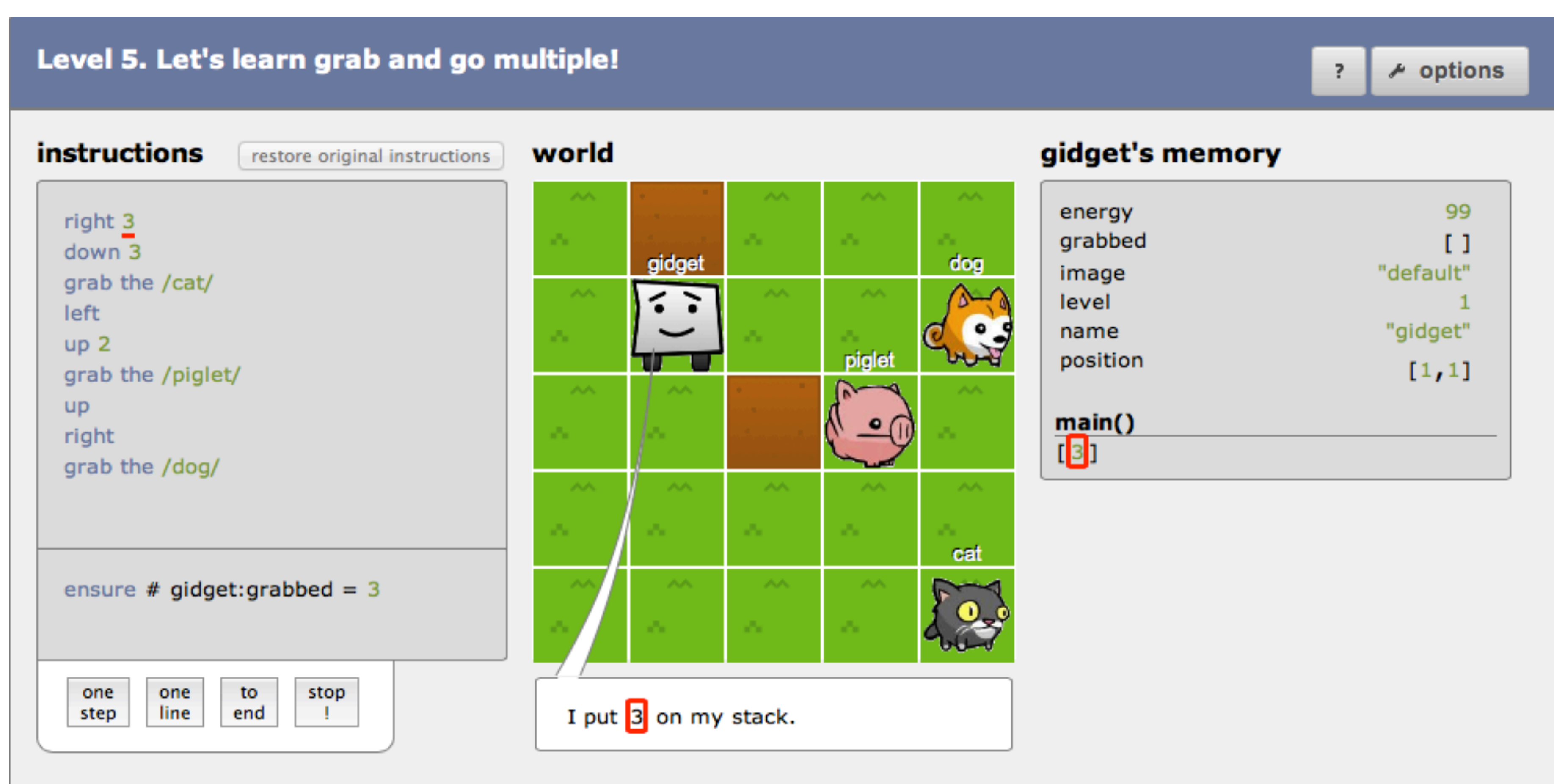
# Gidget

## Computing Education Through Social Debugging :: NSF CNS-1240786

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## Goals

- Can a game effectively teach debugging, programming, & design skills?
- Does explicit instruction of debugging improve learning outcomes?
- Can social gaming features engage teens in discretionary learning?



Level 5. Let's learn grab and go multiple!

instructions

```
right 3
down 3
grab the /cat/
left
up 2
grab the /piglet/
up
right
grab the /dog/
```

ensure # gidget:grabbed = 3

one step one line to end stop !

world

	gidget			dog
			piglet	
				cat

gidget's memory

energy	99
grabbed	[ ]
image	"default"
level	1
name	"gidget"
position	[ 1, 1 ]

main()  
[ 3 ]

I put 3 on my stack.

*In the game, learners help Gidget the robot rescue animals and clean up a chemical spill by debugging error-filled code. Learners edit the code in the left pane, trying to reach the goal-state underneath. Gidget visualizes the program state and provides detailed feedback about the code execution, allowing learners to know exactly how Gidget responded to the code, and how it affected the system.*

## Scope

- 60 male & female teens to play via longitudinal field experiment
- 200 male & female teens to play via summer camps

## Activities

- Iterative game design
- Annual summer camps
- Field experiments
- Social features
- Public deployment

## Outcomes

- Playable by nearly anyone with internet access
- New knowledge about debugging pedagogy in discretionary learning
- Increased computing literacy for U.S. teens



helpgidget.com