

GITHUB PORTER / SHEILA (PROJECT ID: [CLUSTER3-01])

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SWS3009: DEEP LEARNING + TELE-ROBOTIC
SCHOOL OF COMPUTING SUMMER WORKSHOP 2019

DEPARTMENT OF COMPUTER SCIENCE
NATIONAL UNIVERSITY OF SINGAPORE



NUS
National University
of Singapore



DEPLOYMENT DIAGRAM

GRUOP PHOTO

LOVELY
CHARMING

ROBO
-PET

CAPABEL

FUNCTIONALITY

HIGH MOTILITY
+ OBJECT DETECTION
+ ORAL DETECTION

ACHIEVE OBJECT

TAKE ORDERS

INTERACT WITH PEOPLE

EVEN BUY A CUP OF MILK TEA FOR U



—SPEECH FEATURE PARAMETER EXTRACTION **MFCC**

USE **MULTIPLE SENSORS** TO ACHIEVE ACCURATE OBSTACLE AVOIDANCE

—SPEECH RECOGNITION **LSTM** NETWORKS

ANGELCONTROL AND DISTANCE CONTROL USING ENCODER&COMPASS WITH PID

—TARGET DETECTION

ALGORITHM **YOLO**

MULTIPLE PROCESSES ARRANGEMENT WITH SIMPLE **RTOS**

ASSEMBLING SERVO MOTOR FOR SIMPLE TASKS

IMPLEMENTATION