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| Big Orange | |
| APersonal Assistant Robot in Training | |
| Dates: | 2020 - Present |
| CPU | Latte Panda Delta SBC 432 4Gb RAM running Windows 10 Pro |
| Chassis | DFRobot HCR (Home Care Robot) 4 level + tower |
| Microcontroller: | STM32 + Linux on PCMCIA |
| Motor Controller | 2 x 15A, 12v Motors |
| Battery | LiPo Brick – 12v 6A and 5v 2.4A |
| Charging Station | Robot vacuum base with 3D printed pile, acquired by LiDAR |
| Localization and Navigation | LiDAR based SLAM with mapping |
| Path Planning | D\* search |
| 3rd Party | Based on SLAMTEC, Ltd. SDP-Mini Robot |
| Vision | 2 Luxonis Oak-D Stereo AI Cameras, |
| Speech Recognition (ASR) | Vosk (based on Kaldi and others) |
| Text To Speech (TTS) | Windows SAPI |
| Audio Input | ReSpeaker v2.0 5 Microphone Array with light ring |
| Sensors | RPLidar A2, Bump switches, Depth Sensor, Ultrasonic sonar, 24Ghz mmWave Radar |
| Display | 7” Touch LCD Display |
| TPU | Coral Dual Edge |
| Total Cost | $2,100 |
| Programming Languages | Python top level brain logic and functionality  C++ for microcontroller firmware, services depth cam, manual joystick driving, camera servos and radar, SLAMWARE API Python bindings. PyGame for graphics |
| AI Vision Capabilities | Facial Recognition, Human Pose Detection, Object Recognition using TinyYolo V4 |
| Advanced Behaviors | Follow a person, Track a person, Deliver object to person in another room, Find object or person in room, Come to person when called, go to a location pointed to by a person |

# Voice Control

Speech Recognition

# Approval of minutes

The minutes were read from the December meeting and approved.