GIT: <https://github.com/galveg1/aRobot.git>

Youtube:

1A. Complete **Smart robot testing program** –

**Youtube Link:** [**https://youtu.be/dQ7wS0OxplE**](https://youtu.be/dQ7wS0OxplE)

1B. Complete **Infrared obstacle avoidance program** –

**Youtube Link:** [**https://youtu.be/AqsV\_Ya5vSo**](https://youtu.be/AqsV_Ya5vSo)

**Youtube Link:** [**https://youtu.be/LYSUiWQToDg**](https://youtu.be/LYSUiWQToDg)

2A. **Infrared obstacle program** –

**Youtube Link:** [**https://youtu.be/Kbs7gq2DJV0**](https://youtu.be/Kbs7gq2DJV0)

3A. **Webiopi**

**Youtube Link:** [**https://youtu.be/2aLHv9mTa9A**](https://youtu.be/2aLHv9mTa9A)

4A. Install ROS (any compatible version) on the Rpi3 of the Alphabot. Create a ros package called

“alphabot\_manual” based on roscpp

**Youtube Link:** [**https://youtu.be/ztJyftFCXco**](https://youtu.be/ztJyftFCXco)

4A.3 Perform manual controlled motion of alphabot using IR RX-TX Controller.

**Youtube Link:** [**https://youtu.be/\_6y20aZlsGk**](https://youtu.be/_6y20aZlsGk)

**Youtube Link:** [**https://youtu.be/XZ6lSuPTOTY**](https://youtu.be/XZ6lSuPTOTY)

DESIGN ASSIGNMENT 5 [35]

5A. Interface the provided RGBD sensor to ROS on the host machine to collect 2D or 3D PC data

Depth Sensing:

**Youtube Link:** <https://youtu.be/2ffU1IR6N-o>

Positional Tracking:

**Youtube Link:** <https://youtu.be/QJvEzi2Ns80>

Spatial Mapping:

**Youtube Link:** <https://youtu.be/lliTvJu6Uns>