# Requirements

**Project Name**: RADAR

## High level requirements:

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| --- | --- |
| **ID** | **Description** |
| HL\_01 | If OFF, the system must turn ON with the press of the on-board button |
| HL\_02 | If ON, the system must turn OFF with the press of the on-board button |
| HL\_03 | Platform must rotate, on top of a motor, in a to and fro motion in a range of 1800 |
| HL\_04 | Distance must be always calculated |
| HL\_05 | Any object within the range of the SR-04 must be detected |

## Low level requirements:

|  |  |
| --- | --- |
| **ID** | **Description** |
| LL\_01 | When the on-board button is pressed, the ***respective*** register must toggle |
| LL\_02 | Motor must turn in both directions at a moderate speed |
| LL\_03 | Red LED should blink whenever an object is detected |
| LL\_03 | SR-04’s ***prerequisites*** must be satisfied |
| LL\_04 | Distance must be calculated |

Combined

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| --- | --- |
| **ID** | **Description** |
| HL\_01 | On board switch should act as the power button. |
| HL\_01\_LL\_01 | If OFF, the system must turn ON with the press of the on-board button |
| HL\_01\_LL\_02 | If ON, the system must turn OFF with the press of the on-board button |
| HL\_01\_LL\_03 | When the on-board button is pressed, the ***respective*** register must toggle |
| HL\_02 | Platform must rotate, on top of a motor |
| HL\_02\_LL\_01 | Motor must turn in both directions at a moderate speed |
| HL\_02\_LL\_02 | The range of motion should be 1800 |
| HL\_03 | HC-SR04’s ***prerequisites*** must be satisfied |
| HL\_04\_LL\_01 | Distance must be calculated |
| HL\_04\_LL\_02 | Any object within the range of the HC-SR04 must be detected |