Group Name: Gitt

GLOBAL requirements	**Check the completed tasks**
When the device stops, all LEDs shall be turned off.	YES
While the device is moving forward, only the LEDs at the front shall be turned on.	YES
While the device is moving backward, only the LEDs at the back shall be turned on.	YES
While the device is turning left (counter-clockwise direction), the LEDs at the left shall blink twice a second. Other LEDs must stay turned off.	YES
While the device is turning right (clockwise direction), the LEDs at the right shall blink twice a second. Other LEDs must stay turned off.	YES
Whenever the ASCII text “STATUS” followed by a carriage return and a line feed is sent to the device via serial communication, the device should return a status information. (Check out the Status Information section below)	YES
An external potentiometer must be used to control the velocity of the car. The potentiometer must allow us to set the speed from 0% to 100%, where 0% being literally no movement and 100% being the maximum speed.	YES

TEST MODE requirements	**Check the completed tasks**
When entered, the device should send the ASCII text “TESTING” followed by a carriage return and a line feed via serial communication.	YES
Whenever the ASCII text “LEFT” followed by a carriage return and a line feed is sent to the device via serial communication, the device must turn counter-clockwise 90 degrees in its place and then stop.	YES
Whenever the ASCII text “RIGHT” followed by a carriage return and a line feed is sent to the device via serial communication, the device must turn clockwise 90 degrees in its place and then stop.	YES
Whenever the ASCII text “FORWARD” followed by a carriage return and a line feed is sent to the device via serial communication, the device should start moving forward.	YES
Whenever the ASCII text “BACK” followed by a carriage return and a line feed is sent to the device via serial communication, the device should start moving backward.	YES
Whenever the ASCII text “STOP” followed by a carriage return and a line feed is sent to the device via serial communication, the device should stop moving.	YES

Whenever a command word followed by a carriage return and a line feed is sent, the device should echo the sent command back via the serial communication followed by a carriage return and a line feed.	YES
Whenever LDRs detect a light source (a light source (more than 300 lumens) which is much brighter than the room light), the car must stop. When the light source is gone, the device must continue doing whatever it was doing before.	YES
Whenever the ASCII text “AUTO” followed by a carriage return and a line feed is sent to the device via serial communication, the device should switch to AUTONOMOUS MODE. The requirements for the AUTONOMOUS MODE is below.	YES

AUTONOMOUS MODE requirements	**Check the completed tasks**
When switched to AUTONOMOUS MODE, the device should send the ASCII text “AUTONOMOUS” followed by a carriage return and a line feed via serial communication.	YES
When switched to AUTONOMOUS MODE, the device must wait until the ASCII text “START” followed by a carriage return and a line feed is sent through serial communication.	YES
While moving and next to a wall, the device should move along the wall, within 15 to 35 centimeters from the wall. The exact measurements may vary on the demo day, but what we want with this requirement is that we want the car to stay at a reasonable distance from the wall. It is worth to mention that the wall will never have a curve that will be impossible to follow along for the configuration of your cars. (For example there will be no sharp 90 degree	PARTIAL
Once the device faces the LED strip at the end of the road while moving, it must stop and send the ASCII text “FINISH” followed by a carriage return and a line feed through serial communication.	YES
Whenever the ASCII text “TEST” followed by a carriage return and a line feed is sent to the device via serial communication, the device should switch to TEST MODE. The requirements for the TEST MODE is above.	YES