CHAPTER 5

IMPLEMENTATION AND RESULTS

5.1. Results

	Table 3.1. System and argonum test result table				
No	Test scenario	Test Case	Expected	Test result	Status
			results		
1.	The system will	Putting the toy	The serial	The system	in
	direct the car to	car under the	monitor will	successfully	accordance
	slot A if the	ultrasonic sensor	display	displays the	
	car's height is	with a height of	information that	information for	
	>185	about >185	the car must go	the car to enter	
	1	2 51	to slot A	slot A	
2.	The system will	Place the toy car	The serial	The system	in
	direct the car to	under the	monitor will	successfully	accordance
	slot B if the car	ultrasonic sensor	display	displays the	
	height is <185	with a height of	information that	information for	
	Nr >	approx. <185	the car must go	the car to enter	7/
			to slot B	slot B	
	0			17	
3.	The syst <mark>em will</mark>	Place the toy car	The serial	The system	in
	direct the first	under the	monitor will	successfully	accordance
	car to e <mark>nter with</mark>	ultrasonic sensor	display	display <mark>s</mark>	
	a heigh <mark>t >185 to</mark>	at a height of	information that	information for	
	slot 1 in slot A	approx. >185	cars with height	the car to enter	
	because it is		>185 must go to	slot A and	
	closest	V L	slot A and enter	occupy slot 1	
		6	slot 1	because it is	
		0,		closest	
4.	The system will	Place the toy car	The serial	The system	in
	direct incoming	under the	monitor will	successfully	accordance
	cars with a	ultrasonic sensor	display	displays	
	height >185 to	with a height of	information that	information for	
	slot 2 in slot A	approximately	a car with a	the car to enter	
	if slot 1 is filled	>185 and fill slot	height >185	slot A and	
		1 in slotA by	must go to slot A	occupy slot 2	
		covering the	and enter slot 2	because slot 1	
		LDR sensor with	because slot 1 is	is already filled	
		an object	already filled		
5.	The system will	Place the toy car	The serial	The system	in
	direct cars with	under the	monitor will	successfully	accordance
	height >185 to	ultrasonic sensor	display	displays	

Table 5.1. System and algorithm test result table

	get out if slot A is completely filled	with a height of approximately >185 and fill slot 1 and slot 2 in slotA by covering the LDR sensor with objects	information that slot A is full and allow the car to exit	information for the car to get out of the parking lot because the slot is full	
6.	The system will direct the first car to enter with a height <185 to slot 3 in slot B because it is closest	Place the toy car under the ultrasonic sensor at a height of approx. <185	The serial monitor will display information that the car with height <185 must go to slot B and enter slot 3	The system successfully displays information for the car to enter slot B and occupy slot 3 because it is closest	in accordance
7.	The system will direct entry cars with height <185 to slot 4 in slot B if slot 3 is filled	Place the toy car under the ultrasonic sensor with a height of approx. <185 and fill slot 3 in slotB by covering the LDR sensor with an object	The serial monitor will display information that the car with height <185 must go to slot B and enter slot 4 because slot 3 has been filled	The system successfully displays information for the car to enter slot B and occupy slot 4 because slot 3 is already filled	in accordance
8.	The system will direct a car with a height <185 to go to the nearest slot A when slot B is fully occupied	Putting the toy car under the ultrasonic sensor with an average height of <185 and filling slots 3 and 4 by closing the LDR sensor in slots 3 and 4	The serial monitor will display information that the car with a height of <185 must go to slot A because slot B is fully charged	The system successfully displays information for the car to enter slot A and occupy the closest slot in slot A	in accordance

No	Test scenario	Test Case	Expected results	Test result	Status
1.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 173	Servo not open	Servo not open	in accordance
2.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 183	Servo open	Servo not open	It is not in accordance
3.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 174	Servo not open	Servo not open	in accordance
4.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 185	Servo open	Servo open	in accordance
5.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 189	Servo open	Servo open	in accordance

 Table 5.2. Servo functional test result table

6.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 191	Servo open	Servo open	in accordance
7.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 182	Servo open	Servo open	in accordance
8.	If the captured height is <175 then the servo does not open, and if the height is >175 then the servo will open.	Height 184	Servo open	Servo open	in accordance
	5				1

 Table 5.3. LDR sensor module functional test result table

No	Test scenario	Test Case	Expected results	Test result	Status
1.	If the sensor light is <300 then the slot status is available, and if the sensor light is >300 then the slot is filled	Light value 41	Slots available	Slots available	in accordance
2.	If the sensor light is <300 then the slot status is available, and if the sensor light	Light value 1017	Slots filled	Slots filled	in accordance

	is >300 then the slot is filled				
3.	If the sensor light is <300 then the slot status is available, and if the sensor light is >300 then the slot is filled	Light value 40	Slots available	Slots available	in accordance
4.	If the sensor light is <300 then the slot status is available, and if the sensor light is >300 then the slot is filled	Light value 42	Slots available	Slots available	in accordance
5.	If the sensor light is <300 then the slot status is available, and if the sensor light is >300 then the slot is filled	Light value 1018	Slots filled	Slots filled	in accordance

From the test table above, it can be concluded that this system has a success rate with high precision and recall as follows:

Precission
$$\frac{21}{(21+1)} = \frac{21}{22} = 95\%$$
 Recall $\frac{21}{(21+0)} = \frac{21}{21} = 100\%$