



RFID Application Checklist

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Company Monterey Bay Aquarium Research Institute

OEM ☒ End User ☐ Reseller ☐ Integrator ☐

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Business Case & History

1. Time frame of Project: 0-3 months ☐ 3-6 months ☐ 6-12 months ☒
2. Is project budgeted? not yet Is pilot or testing budgeted? yes
3. Is this your first RFID Project? yes How is the identification currently being done? labels and notes
4. What problem are you trying to solve?

Samples are collected on 25 mm filters that are housed in what we call a "puck". These puck are moved around in our instrument from storage to use and back to storage. We would like to have some identification system that would allow recognition of presence within and throughout the instrument along with a small bit of metadata. +

The RFID Tag

5. What is to be identified, widget/pallet/tote/carrier/vehicle/person? 1.25" diameter x .625" height cylinder How many Tags? ~100 per instrument
6. To what type of material is the RFID Tag to be mounted, plastic/metal/wood/box? plastic
7. What read range is required, minimum and maximum if applicable? 0.25" to 0.5"
8. Do you need to ensure only 1 Tag at a time is read? yes How far apart will Tags be? 0.625"
9. Is there a size limitation to the Tag or a preferred size/shape? Yes, must fit within "puck" cylinder and take minimal height. Embedded within puck outline
10. Anything special we need to know about the Tag environment, heat, water, metal? some metal will be around and water will be passing through "puck" but tag not exposed to water.
11. Tags to be disposable or permanent? permanent How are Tags to be applied, screws/epoxy/stick backing potting
12. Tags to be Read Only (RO) or Read Write (RW)? RW Amount of Tag memory in bytes or bits? 1000 bytes
13. Any other Tag details we need to know?

The Readers

14. Hand Held or Stationary? see below If stationary, networked or dedicated read points? see below
15. What will the Reader be connected to, PC, PLC? Linux embedded processor What communications protocol? RS-232 or I2C
16. Any environmental considerations we need to know about, outdoor, indoor, waterproof?

There needs to be multiple read points within the instrument for the purpose of tracking the puck's travel through the instrument. The instrument will be about 2 cu ft in volume. Generally the instrument will be in a dry place or housing. Readers will be protected from leaks. +

Factory Floor Specific Questions

17. How is the carrier/tote/pallet presented to the Reader? stations within the instrument Type of conveyance? robotic manipulation
18. Is the carrier moving or stationary when being read? stationary If moving, speed?
19. Is the carrier/tote/pallet orientation guaranteed for Tag and Reader alignment? alignment will be guaranteed/controlled
20. Size/shape and material of the carrier? 1.25"x0.625" cylinder of plastic which may contain residual waste How many read stations? 13-15, but only one reading at a time.

Timeline (dates)

Site Visit	Samples/Demo	Pilot	Project Start	Completion
	<u>December 2021</u>		<u>August 2021</u>	<u>June 2022</u>

21. Additional Comments:

This information is confidential.