Step 2:

Input types:

- Real time clock/timer
- Bin level sensor
- Bowl weight sensor

Output types:

- Provide food level
- Rotate motor
- Provide alert of food level
- Provide alert of time schedule
- Provide alert of food consumption

Sample values and operational constraints:

Inputs:

Input Type	Description	Sample value	Constant	Unit	Constraint
Real time clock	Sets food dispensing schedule	08:00 18:00	Absolute	hh:mm	Only runs at set times
Food Bin level sensor	Measures the amount of food in food bin	2500	Gravity	Grams (g)	Has to be = > 10%
Bowl weight sensor	Measures the amount of food in food bowl	250	Gravity	Grams (g)	Bowl has maximum capacity

Outputs:

Output Type	Description	Sample value	Constant	Unit	Constraint
Motor	Motor rotates and dispenses food	90 º	*****	º	Will only perform at scheduled times.
Alert system	Sends an alert if food bin is close to empty	*****	*****	Text on dashboard	Only sends alert at < 10% food level?
Alert system	Sends an alert if food bowl weight is unchanged after time	*****	*****	Text on dashboard	Only sends alert if food bowl weight unchanged after 10 minutes.

Alert system	Sends an alert if it is not the scheduled feeding time	*****	*****	Text on dashboard	Only sends alert if out of scheduled time