

Project Development

Delivery of sprint-1

Date	29 October 2022
Team ID	PNT2022TMID49530
Project Name	IOT Based Smart Crop Protection for Agriculture
Maximum Marks	2 Marks

Sprint-1 coding

Coading for Animals or pests enter into the field

```
from pygame import mixer

class SoundPlayer:
    def __init__(self, sound_file):
        mixer.init(44100, -16, 2, 2048)
        self.sound = mixer.Sound(sound_file)
    def play(self):
        self.sound.play()
import time
class FPS:
    def __init__(self):
        self.frame_count = 0
        self.elapsed_time = 0
    def start(self):
        self.start_time = time.time()
    def stop(self):
        self.stop_time = time.time()
        self.frame_count += 1
        self.elapsed_time += (self.stop_time-self.start_time)
```

```
def count(self):
    return self.frame_count
def elapsed(self):
    return self.elapsed_time
def fps(self):
    if self.elapsed_time==0:
        return 0
    else:
        return self.frame_count/self.elapsed_time
```

coding for moisture level checking

```
import RPi.GPIO as GPIO

import time

channel=21

GPIO.setmode(GPIO.BCM)

GPIO.setup(channel,GPIO.IN)

def callback(channel):

    if GPIO.input(channel):

        print("no water detected")

    else:

        print("water detected")

GPIO.add_event_detect(channel,GPIO.BOTH,bouncetime=300)

GPIO.add_event_callback(channel,callback)

while True:

    time.sleep(1)
```