

```

classDiagram
    class DaveProvidedClasses {
        <<abstract>> Comm
        + send(String)
        # receive(String)
        <<abstract>> Driver
        + drive(double)
        + turn(double)
        # moveFinished()
        # mechanicalError()
        <<abstract>> SoilAnalyser
        + analyse()
        # analysisReady(String)
        <<abstract>> Camera
        + takePhoto()
        # photoReady(char[])
    }
    class ConcreteComm
    class ConcreteDriver
    class ConcreteSoilAnalyser
    class ConcreteCamera
    class ObservableDevice {
        <<interface>>
        + addObserver(DeviceObserver)
        + deleteObserver(DeviceObserver)
        + notifyObservers()
    }
    class DeviceObserver {
        <<interface>>
        + update(ObservableDevice)
    }
    class CommObserver
    class DriverObserver
    class SoilAnalyserObserver
    class CameraObserver
    class RoverProgram {
        + main(String[])
    }
    class RoverController {
        + start()
    }
    class RoverCommandCodec {
        + encode(RoverCommand): String
        + decode(String): RoverCommand
    }
    class RoverCommand {
        <<interface>>
        + execute()
    }
    class RotationCommand {
        + degrees: double
        + execute()
    }
    class TranslationCommand {
        + metres: double
        + execute()
    }
    class AnalysisCommand {
        + execute()
    }
    class PhotographyCommand {
        + execute()
    }
    class RecursionCommand {
        + listIndex: int
        + execute()
    }
    class RoverTaskList {
        + add(RoverCommand)
    }
    class javaLangException
    class RoverCommandException
    class javaLangIterable

    DaveProvidedClasses <|-- ConcreteComm
    DaveProvidedClasses <|-- ConcreteDriver
    DaveProvidedClasses <|-- ConcreteSoilAnalyser
    DaveProvidedClasses <|-- ConcreteCamera
    ObservableDevice <|.. ConcreteComm
    ObservableDevice <|.. ConcreteDriver
    ObservableDevice <|.. ConcreteSoilAnalyser
    ObservableDevice <|.. ConcreteCamera
    ObservableDevice <|.. CommObserver
    ObservableDevice <|.. DriverObserver
    ObservableDevice <|.. SoilAnalyserObserver
    ObservableDevice <|.. CameraObserver
    DeviceObserver <|.. CommObserver
    DeviceObserver <|.. DriverObserver
    DeviceObserver <|.. SoilAnalyserObserver
    DeviceObserver <|.. CameraObserver
    RoverProgram -->|instantiates| ConcreteComm
    RoverProgram -->|instantiates| ConcreteDriver
    RoverProgram -->|instantiates| ConcreteSoilAnalyser
    RoverProgram -->|instantiates| ConcreteCamera
    RoverProgram -->|instantiates| RoverController
    RoverController -->|1| ConcreteComm
    RoverController -->|1| ConcreteDriver
    RoverController -->|1| ConcreteSoilAnalyser
    RoverController -->|1| ConcreteCamera
    RoverController -->|1| CommObserver
    RoverController -->|1| DriverObserver
    RoverController -->|1| SoilAnalyserObserver
    RoverController -->|1| CameraObserver
    RoverController o-->|1| RoverCommandCodec
    RoverController o-->|0..*| RoverTaskList
    RoverTaskList o-->|0..*| RoverCommand
    RoverTaskList ..>|java.lang.Iterable| javaLangIterable
    RoverCommandException <|-- javaLangException
    RoverCommandException -->|throws| RoverCommand
    RotationCommand <|.. RoverCommand
    TranslationCommand <|.. RoverCommand
    AnalysisCommand <|.. RoverCommand
    PhotographyCommand <|.. RoverCommand
    RecursionCommand <|.. RoverCommand

```

